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OF THE

COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION

TO ACCOMPANY

H.R. 3678

[Including cost estimate of the Congressional Budget Office]

together with

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Part 1

WATER RESOURCES CONSERVATION, DEVELOPMENT, AND INFRASTRUCTURE IMPROVEMENT AND REHABILITATION ACT OF 1983

MAR. 8, 1984.—Ordered to be printed

Mr. HOWARD, from the Committee on Public Works and
Transportation, submitted the following

REPORT

[To accompany H.R. 3678]
[Including cost estimate of the Congressional Budget Office]
together with

ADDITIONAL VIEWS

The Committee on Public Works and Transportation, to whom was referred the bill (H.R. 3678) to provide for the conservation and development of water and related resources and the improvement and rehabilitation of the Nation's water resources infrastructure, having considered the same, report favorably thereon with an amendment and recommend that the bill as amended do pass.

The amendment strikes out all after the enacting clause of the bill and inserts a new text which appears in italic type in the reported bill.

PREFACE

The time has come to act decisively on the paramount issue of creating a nationally coordinated water resources use policy. This bill, the Water Resources Conservation, Development and Infrastructure Improvement and Rehabilitation Act, is a major first step in that direction.

Except in times of crisis, water in America is too often taken for granted in our everyday lives. We complacently turn on the tap, and gallons of fresh water magically flow from it. But it is far from magic. The life-sustaining water that flows from the tap is the result of a vast out-of-sight and, all to often, out-of-mind infrastructure of private and public facilities that are constructed, operated and maintained in order to assure adequate supplies of water—adequate in quality as well as quantity—to support our Nation's economic vitality and, indeed, to make possible life itself.

While the most visible use of water for most of us is our personal household use, it is important to remember that there are many other competing water uses, each of which contributes significantly to the economic dynamics of the Nation and to the quality of life of all our citizens. For example, we must continue to provide adequate supplies of fresh water for food production and other vital industries. We must continue to provide modern ports and inland, general cargo, and deep-draft navigation channels to facilitate the commerce that has become the lifeblood of our vast agricultural and manufacturing regions. We must also preserve adequate instream flows and preserve the general availability of clean water in our lakes, estuaries and wetlands to assure the preservation and enhancement of adequate fish and wildlife habitat and protection of the ecosystem, as a whole.

Overall, the United States has been blessed with an abundence of water resources and has extensively utilized those resources to promote a standard of living that is enviable by world standards. In fact, our Nation's renewable supply of fresh surface and ground water is approximately 1.4 trillion gallons per day in the coterminous states. Of this amount, about 380 billion gallons per day is withdrawn for use in our homes, farms and industries; and about 280 billion gallons per day is returned to streams, becoming available for reuse. Partly because of this abundance, the public expectation of a continued plentiful supply of clean, safe and inexpensive water has become one indispensable feature of our high standard of living. The public has also come to expect protection from catastrophic water-related events that, if left unchallenged, can cause heavy losses of life and property damage, not to mention disrupting the community cohesion that has become one of the hallmarks of American life.

Water resources problems are not new; problems relating to the use, overuse and abuse of water have existed since the inception of civilization, particularly in arid regions. However, water resources problems in America are now becoming acute, and changes in public attitudes are beginning to reflect this condition. A growing population competing for a limited amount of water has caused the previously common perception of clean water as an unlimited resource to give way gradually to a more realistic public perception that clean water is no longer unlimited and no longer free. The growing number of water-related conferences, local and national news articles and editorials, television specials, books, and introduced legislation attest to that fact.

Continuing to meet the public expectations that follow our high standard of living will not come about through complacency. Complacency and continued inaction can only exacerbate growing water problems. Indeed, preventing the realization of what many have described as the coming "water crisis" will require hard work and hard choices—at the Federal, State and local levels—guided by a national water use policy. It is true that nearly every seemingly "simple" water resources problem that arises in America today actually involves a myriad of complex and extensive legal, social, economic and political implications. However, with sufficient intergovernmental planning and cooperation these problems can be solved in a fair and prudent manner.

Although the Nation's natural supply of water appears to be more than adequate to meet the needs of its present population, the real problem lies not in having inadequate quantities of water nationally, but in the fact that water of adequate quality is not always available at the the time and place it is needed. All States have identifiable water resources distribution problems. To combat problems of distribution, governmental and private entities—Federal, regional, State and local—have often resorted to engineering or management solutions, with the States primarily responsible for the management and allocation of waters within their respective borders. Where water resources needs have transcended the States' abilities to resolve, the Federal government has stepped in to provide assistance. This bill recognizes the complex intergovernmental relationships that have evolved to deal with water resources needs. It is intended not to diminish the traditional prerogatives and responsibilities of State and local governments, but to provide a more rational framework for national water resources decision-making when national solutions are appropriate and to complement State, local, and private efforts.

The bill also recognizes that water resources needs and solutions are all unique. One region be plagued by droughts and another by floods; and the appropriate solutions to flooding or drought problems in one region may be totally unsuited to another. Another region may have adequate supplies of fresh water and have adequate protection from floods, but have acute transportation problems relating to outdated navigation facilities. Because of its recognition of vast interregional differences in both the abundance and the use of water, and because of its recognition of the primacy of State and local governments in the allocation and management of water resources in many instances, the Committee has sought, wherever possible, to ensure regional, State and local participation in the policy-making process.

This bill comprises a major step in the formulation of a nationally coordinated water use policy. It is truly a landmark bill, for the first time integrating the authorization and deauthorization of all types of water resources projects with the establishment of an equitable new Federal/non-Federal partnership—including cost-sharing requirements where appropriate—and with the creation of an independently-chaired National Board on Water Resources Policy designed to provide a national source of professional expertise and information, augmented by regional, State, and local input, that will enable the Congress to further develop responsible and responsive national water resources policies. This bill embodies the Committee's belief that it is possible to develop a nationally coordinated policy that will ensure the optimum yield from one of our most vital national assets—our water resources—and the Committee's recognition that water resources development must be carried out in a rational and equitable manner that will benefit the Nation as a whole and meet the diverse needs of all its regions.

INTRODUCTION

H.R. 3678, as reported, contains water resources project authorizations, studies of potential water resources projects, modifications to authorized projects, and other provisions relating generally to the Water Resources Development Program of the Corps of Engineers. It also contains a program for assistance to communities for the construction, repair and rehabilitation of water supply systems, the creation of a National Board on Water Resources Policy, and the deauthorization of a large number of older water resources development projects which have not been constructed.

The bill was developed following hearings by the Subcommittee on Water Resources at which the Subcommittee heard testimony from Members of Congress, Federal and state officials, representatives of local organizations, environmental groups, and interested citizens. Thirty-three days of hearings were held over a two-year period, during which testimony was received from 486 witnesses. This information, as well as a great deal of other information relating to the Nation's water resources needs, was extensively examined by the Subcommittee. The result is a bill which both meets a large variety of water resources needs and establishes new policies for water resources development in the future.

The last water resources development bill was signed into law in 1976. The last true construction authorization bill was signed into law in 1970. The 1974 and 1976 Acts consisted primarily of authorizations for advanced engineering and design of projects rather than for construction. As a result, over this 14-year period, a very large backlog of proposed water resources projects has accumulated. Detailed testimony was received on all of these projects, and they have all been analyzed very carefully. While the total number of projects appears large, it must be remembered that they represent over a decade of detailed planning and study of water resources problems throughout the Nation.

Authorization of these projects at this time, together with the implementation of new policies adopted by the Committee, will enable the program to proceed once again in a responsive and expeditious manner to meet the critical water resources needs of our Nation.

Our water resources infrastructure forms a vital part of our Nation's transportation system, its economy, and indeed, its wellbeing. Yet, this system is in critical need of repair, rehabilitation and improvement. On the inland waterways, many canals, locks and dams are past the end of their design lives. Of the 194 locks in the inland waterway system, the average age is 40 years, and some locks are approaching 80 years of service.

Major dredging and improvement of the Nation's ports is essential to accommodate expanding exports shipping, particularly of energy resources and agricultural products. Today's very large cargo carriers require port depths of 55 feet or more. The major United States ports have average depths of only 45 feet.

The nationwide inspection of some 9,000 non-Federal dams undertaken by the Corps of Engineers found that about one-third, or nearly 3,000, are unsafe because of inadequate spillway capacity, unstable structural components, seepage or inoperable components.

The water supply systems throughout the country are critically in need of extensive repair, rehabilitation and improvement. Problems exist with extensive leakage, inadequate water treatment facilities, and the need for new sources of water supply.

The bill addresses these and other problems through the authorization of needed projects and the provision of new Federal assistance coupled with the imposition of additional requirements for non-Federal cooperation.

PORTS

The costs associated with construction and maintenance of the general navigation features for ports—entrance channels and turning basins—have traditionally been Federal, in view of the very widespread nature of benefits attributable to ports and the substantial local investment in landside facilities. A substantial portion of the Nation's export and import trade moves through our ports. In calendar year 1982, total imports and exports amounted to 787,191,000 tons, with a value of $283,260,000,000. Annual customs revenues amount to over $9 billion, close to $6 billion of which are collected at United States ports. The present value of landside facilities is estimated at between $41 and $50 billion. The expenditures for landside facilities estimated by the Maritime Administration for the period 1980 through 1990 will be approximately $500 million per year.

Legislative proposals have been made which would require cost recovery by the Federal Government for the costs of constructing and maintaining the general navigation features of port projects. Testimony received by the Committee demonstrated that such proposals would reduce the Nation's competitive position in foreign trade, particularly with regard to exports of grain and coal. Such proposals also could be expected to have adverse regional economic impacts as traffic would be diverted from one port to another because of differing local costs. Moreover, the United States ports constitute an essential element of the Nation's transportation system, making possible the import and export of goods to the benefit of the entire population. The ports generate substantial revenues, including customs revenues as well as tax revenues, to the Federal Treasury. The benefits associated with ports are not port specific, nor are they specific to various regions of the country. For these reasons, the Committee has retained Federal involvement in the construction and maintenance of the general navigation features of general cargo ports, which are those ports having a depth of 45 feet or less.

The Committee has, however, provided substantial non-Federal cost-sharing for the incremental costs associated with constructing and maintaining ports to a depth greater than 45 feet. The Committee feels that non-Federal participation in these ports is appropriate, because the greater depths serve very specialized vessels and commodities and will be used by a relatively small segment of the market.

In order to meet the Nation's needs for improvement of its port facilities, it is necessary to provide an adequate and assured source of funding so as to ensure the expeditious and orderly modernization of our ports. The Committee has done this through the establishment of a dedicated trust fund constituted from funds in the amount of annual customs revenues, but not to exceed $2 billion per year. Customs revenues are generated by traffic and activities at ports, and the improvement of our port facilities can be expected to generate additional customs revenues.

INLAND WATERWAY TRANSPORTATION SYSTEM

The inland waterway system, including the intracoastal waterways, contains more than 25,000 miles of shallow-draft channels, over 200 lock and dam sites, and thousands of navigational training structures. The major commodities carried on the system include coal, petroleum products, crude petroleum, metallic ores, grains and chemicals. In 1980, the inland waterways carried 535,000,000 tons of cargo. In 1978, the inland waterways carried over 15 percent of all domestic intercity freight. The National Waterways Study, recently completed by the Corps of Engineers, predicts that increases in total waterborne traffic ranging between 24 and 51 percent will occur in the period 1977 through 2003.

The general navigation features of the inland waterway system, consisting of dredging and the construction and maintenance of locks and dams, have been the responsibility of the Federal Government in view of the widespread economic benefits occurring from the system and its vital importance to the commerce of the Nation as a whole. Legislative proposals have been made which would provide for the recovery of a portion of the costs of construction, operation and maintenance on the system.

In 1978, a fuel tax was imposed on commercial users of the inland waterways. The tax commenced at four cents per gallon, eventually rising to ten cents per gallon. The present rate is eight cents per gallon. At this rate, $47,000,000 per year is being collected. The present balance in the fund is about $90,000,000. The anticipated revenues when the tax becomes 10 cents per gallon will eventually reach at least 80,000,000 per year. These revenues are deposited in the Inland Waterways Trust Fund.

Testimony received by the Subcommittee demonstrated that a high level of cost recovery would have serious adverse economic impacts, not only on the inland waterways transportation industry, but on many major commodities such as agriculture, coal, steel and steel products, and sand and gravel. It would also reduce the competitive position of the United States in world trade, particularly in the area of agricultural exports, because a large portion of these commodities destined for export is transported to the ports by barge.

The Committee therefore determined that additional charges should not be imposed on the users of the inland waterways. The Committee has, however, adopted significant new requirements with regard to the construction of the projects authorized in Title II. In Section 2, the Committee has provided that one-third of the cost of the new lock and dam projects will be paid for out of the Inland Waterways Trust Fund. This represents a contribution of 33 percent by the users of the waterways since it is they who pay the taxes that are deposited into the Trust Fund.

FLOOD CONTROL

The Flood Control Act of 1936, as amended, provides that for local flood protection projects, non-Federal interests must provide necessary lands, easements, rights-of-way and relocations; hold and save the United States free from damages due to the construction works; and operate and maintain the works after completion. Under this requirement, non-Federal costs vary widely depending on the value of the lands which are needed for the project and the number of relocations of structures and utilities which are involved. The non-Federal share of the projects included in title III, for example, ranged from less than five percent to more than 50 percent. The Committee feels that consistent and equitable cost sharing is important in these projects and that the local costs should not be dependent on accidents of geography or the extent of development in the area. A new policy has therefore been adopted. If the lands, easements and rights-of-way do not equal 25 percent of the project costs, the difference must be paid to the Federal Government in cash over a period of 15 years. If the lands, easements, rights-of-way and relocations exceed 25 percent of the project cost, then the non-Federal share is that percentage, except that it is capped at 30 percent.

WATER SUPPLY

Under the Water Supply Act of 1958, the Corps of Engineers has authority to include storage space in a reservoir project for municipal and industrial water supply if non-Federal interests agree to repay with interest the cost of this storage over a period not to exceed 50 years. The Committee has included in the bill the authority to construct water conveyance and treatment facilities. In addition, the requirement has been added that 20 percent of the cost must be paid by the non-Federal interests in advance. The Committee has also included in the bill a new loan program to assist communities in the repair, rehabilitation and maintenance of water supply systems. In all of these cases the non-Federal interests must reimburse the Federal government 100 percent, with interest, for Federal expenditures or loans, as the case may be.

HYDROELECTRIC POWER

Hydroelectric power produced at Corps of Engineers projects is marketed through agencies of the Department of Energy. The costs of projects allocated to power production are not only repaid in full by the users, but provide a source of revenue following completion of the payback period.

The Committee considered a number of proposed hydroelectric power projects for construction by the Corps of Engineers. For many of these projects, non-Federal interests who wish to construct the projects themselves have applied to the Federal Energy Regulatory Commission for a permit to study or a license to construct the power facilities. In these cases the Committee determined that the process should be allowed to run its course. If the process is not completed within a reasonable time, the Committee will then reconsider the projects for Federal construction. The purpose of this determination is to allow affected non-Federal interests a full opportunity to pursue their interests in construction and operation of the hydropower facilities involved.

RECREATION

The Federal Water Project Recreation Act provides that non-Federal interests must pay 50 percent of the separable construction costs of recreation facilities at Federal water resources development projects, and operate and maintain the facilities. Non-Federal interests have up to 50 years to repay their share. The Committee believes that the non-Federal share established in law is already substantial in view of the public benefit which accrues from recreation areas at Corps of Engineer's projects. These areas are used not only by residents in the project area but by residents of other states. The Committee therefore directs the Corps to follow the procedures set forth in existing law.

OTHER MATTERS

In a number of projects, disagreements remained among the various agencies involved as to the proper extent of mitigation and other environmental matters the scope of the project, and the need for additional studies. In these instances, the Committee took two approaches. Where the information was available and there was simply a difference of opinion involved, the Committee, where it considered it appropriate, added specific provisions to the authorizing language modifying the recommendations of the Corps of Engineers. Where the Committee felt that additional information would be useful, it directed further studies with a report to the House Committee on Public Works and Transportation and the Senate Committee on Environment and Public Works within 1 year. On these projects, no appropriations may be made for actual construction or acquisition of lands until approved by resolutions of the two Committees. This will allow detailed planning and engineering to continue while providing protection concerning environmental matters. The prohibition on actual construction until Committee resolutions have been approved does not preclude continuation of advanced engineering and design. It does preclude the undertaking of activities such as dredging for a navigation project or activities which constitute the building of structures such as locks and dams and levees, excavation, fill, and other activities utilizing construction equipment and materials.

GREAT LAKES-ST. LAWRENCE SEAWAY

The Great Lakes-St. Lawrence Seaway extends from the westerly end of Lake Superior to the Gulf of St. Lawrence on the Atlantic Ocean, a distance of more than 2,000 miles. The five Great Lakes—Superior, Michigan, Huron, Erie and Ontario—with their connecting rivers and Lake St. Clair, have a water surface area of about 95,000 square miles. Each of the lakes lies partly in each of the two countries of Canada and the United States, except for Lake Michigan, which lies wholly within the United States. The Great Lakes and their connecting channels have a controlling navigation depth of 27 feet.

The Great Lakes-St. Lawrence Seaway System—a network of navigable waters comprised of the River and five vast lakes and consisting of over 95,000 square miles of waterway—provides access to important cities on either side of the international waterway, thus serving the industrial and agricultural heartland of North America.

The Great Lakes Basin's economy is basically industrial, utilizing the transportation and power advantages offered by the Great Lakes-St. Lawrence River system. In addition, there is significant agricultural, mining and forestry production.

Economic activity is greater and more intensive in the United States portion of the Basin, but the proportion of total Canadian activity in the Basin, compared with the national total, is much higher. The economic-industrial structures are generally similar in the two countries, with some important differences in the relative share of some industrial groups.

The St. Lawrence Seaway opened in 1959. It provided a 27-foot-deep waterway in the St. Lawrence River to permit deep-draft vessels to navigate between Lake Ontario and the Atlantic Ocean and improvements to the Welland Canal making it capable of handling deep-draft vessels passing between Lake Ontario and Lake Erie. Of the seven locks required for deep-draft navigation between Montreal, Quebec, and Lake Ontario, only two, the Dwight D. Eisenhower and the Bertrand H. Snell Locks, lie entirely within the limits of the United States. Two Federal agencies—one in the United States and one in Canada—have jointly operated and maintained the St. Lawrence Seaway since its opening to deep-draft shipping in 1959, and together, during the five years preceding the Seaway's opening, they constructed the navigation and power facilities on the St. Lawrence River.

The United States agency, created by the Seaway Act of 1954, is the St. Lawrence Seaway Development Corporation. It is a wholly government-owned corporation that has been an operating administration within the United States Department of Transportation since 1966, when that Department was established. The Canadian partner in the operation of the Seaway is the St. Lawrence Seaway Authority, a Crown Corporation created by Parliamentary legislation in 1951.

The economic importance of assuring water access between this region and the rest of the world in modern and efficient vessels is self-evident. In recognition of the importance of the Great Lakes as the Nation's Fourth Seacoast, the Committee has provided that the Port Infrastructure Development and Improvement Trust Fund, established in title XIII, shall be available for the study, planning, design, construction, operation and maintenance of navigation projects on the Great Lakes, as well as on the other three coasts, and for the study, planning, design, construction and maintenance of projects by the St. Lawrence Seaway Development Corporation. The Committee intends that the Trust Fund moneys be used for purposes of construction, rehabilitation and structural, mechanical, electrical and electronic maintenance of locks, equipment, structures, channels, fixed and floating aids to navigation and vessel traffic and communication systems, and the facilities, structures and equipment necessary to assure the timely accomplishment of such projects, as well as the cost of feasibility studies for such projects and for such other purposes as determined by the Administrator of the St. Lawrence Seaway Development Corporation. Consistent with this, the Committee expects that there will be a significant reduction in the level of tolls for the U.S. portion of the St. Lawrence Seaway.

The Committee considered proposals to eliminate tolls on the United States portion of the Seaway so that the Seaway would be on an equal footing with other port projects. Because of the bilateral nature of the Seaway, however, the Committee determined that such action would be inappropriate at this time. However, the Committee is sympathetic with the concept of removing the tolls, and therefore directs the Department of State to initiate negotiations regarding the Government of Canada with the purpose of reducing or eliminating tolls of the Seaway. Negotiations should be consistent with our international responsibilities and the possibility of eliminating tolls on the Seaway.

The Committee also directs that negotiations be initiated with the government of Canada for the purpose of identifying improvements in the Great Lakes-St. Lawrence River navigation system which will improve its efficiency and enable it to accommodate larger vessels.

The Committee notes that the Corps of Engineers is presently undertaking two studies of vital concern to the Great Lakes-St. Lawrence Seaway navigation system—the Great Lakes Connecting Channels and Harbors Study and the St. Lawrence Seaway Additional Locks Study.

In the Connecting Channels and Harbors Study the Corps is examining the waterways between Lakes Superior and Huron, beteen Lakes Huron and Michigan, and between Lakes Huron and Erie, and the deep-draft harbors on the upper four Great Lakes. The upper four Great Lakes are linked to overseas trade by the Welland Canal, Lake Ontario, and the St. Lawrence River. The Poe Lock, one of the four parallel locks at Sault Ste. Marie, is 1,200 feet long by 110 feet wide by 32 feet deep. The opening of this lock in 1968 led to construction of new self-unloading class X vessels with 105-foot beams, 1,000-foot lengths and drafts of up to 32 feet. Thirteen vessels of this class are currently in operation, and an additional 8 to 10 are expected by the year 2000. This upgrading of the fleet has resulted in increased dependence upon the Poe Lock. Twenty-five vessels currently can use only the Poe Lock to pass between Lake Superior and Lake Huron, and this number is expected to increase to 35 by the year 2000.

The purpose of the Connecting Channels and Harbors Study is to determine the feasibility of making additional improvements in the connecting channels and harbors to optimize the efficiency of the commercial navigation system. It includes an analysis of the advisability of providing additional lockage facilities and increased lock capacity at Sault Ste. Marie, Michigan. The preliminary feasibility report in June 1982 identified the plan that exhibited the maximum economic feasibility as a second large lock (1,200 feet long, 115 feet wide, and 32 feet deep) at Sault Ste. Marie, and increased traffic control on the St. Marys River.

High interest in the Connecting Channels and Harbors Study continues to be expressed by Federal, State, and regional and local agencies, and by private interests. The final feasibility report of the Division Engineer is scheduled for completion in September of 1985. The Committee strongly urges that this Study be fully funded to the extent necessary to produce the earliest possible final report.

In the second Corps of Engineers study referred to above—the St. Lawrence Seaway Additional Locks Study—the Corps is examining the need for increased system capability and the feasibility of providing additional locks in the Wiley-Dondero Canal, the principal United States section of the St. Lawrence Seaway. Many ships presently using the Seaway are the maximum size permitted by the locks. Even larger ships are now is use on the ocean—and have been also on the Great Lakes since the new Poe Lock at Sault Ste. Marie opened in the fall of 1968. The most feasible plan to increase lock capacity appears to be the construction of additional locks parallel to the existing facilities. The St. Lawrence Seaway Additional Locks Study is scheduled for completion in September of 1986. The Committee urges that the St. Lawrence Seaway Additional Locks Study be fully funded to permit the earliest possible completion of the final report.

SECTION-BY-SECTION ANALYSIS

SECTION 1

This section provides that the Act may be cited as the Water Resources Conservation, Development, and Infrastructure Improvement and Rehabilitation Act of 1983.

SECTION 2

This section provides that in order to ensure against cost overruns, each estimated cost set forth in the bill for a project shall be the maximum amount authorized for that project, except that this maximum amount shall be increased for:

1. Changes in construction costs (including real property acquisitions, preconstruction studies, planning, engineering and design) as indicated by engineering and other appropriate cost indices;
2. Modifications which do not materially alter the scope or functions of the project as authorized; and
3. Additional studies, modifications and actions (including mitigation and other environmental actions) authorized by the bill or required by changes in Federal law.

Basically, this Section limits the amount authorized to be appropriated for construction of the projects authorized in the bill to the amount estimated in the authorizing language of the bill together with any increases caused by increases in costs of construction and land acquisition, modifications undertaken as part of the Secretary's discretionary authority as defined in Section 1134 of the bill, and additional studies, modifications and actions authorized by the bill or required by changes in Federal law. The section applies only to construction costs and not to operation and maintenance costs. The amount authorized for operation and maintenance is whatever amount is necessary over the life of the project. It is not possible to predict these latter costs with any degree of certainty. Accordingly, the Committee has not included them within the limitation on authorizations.

The Committee notes that the estimated costs for projects included in the bill represent October 1982 price levels, and, for purposes of this section, any increases are to be calculated from that date.

It is necessary to provide flexibility in this Section because of laws such as the Water Supply Act of 1958, Section 4 of the 1944 Flood Control Act relating to recreational development, the Federal Water Project Recreation Act, and other laws which give the Secretary general authority to add features to projects subsequent to authorization. Also, it is not uncommon for new requirements to be imposed on the Secretary with regard to projects after the project has been authorized. Indeed, the bill includes many such requirements relating to additional studies and features designed to improve and enhance environmental quality.

SECTION 3

This section provides that for purposes of this Act, the term "Secretary" means the Secretary of the Army acting through the Chief of Engineers.

SECTION 4

This section provides that Sections 201 and 202 and the fourth sentence of Section 203 of the Flood Control Act of 1968 shall apply to all projects authorized by this Act. This is a general provision, included in water resources development acts, which restates the applicability of a number of general authorities relating to the construction of water resources projects by the Corps of Engineers concerning such matters as acquisition of lands, easements and rights-of-way and the furnishing of assurances of non-Federal cooperation.

TITLE I

PORT DEVELOPMENT

SECTION 101

This section authorizes the construction of six deep draft navigation projects. Descriptions of the projects follow.

NORFOLK HARBOR AND CHANNELS, VA.

Location.—Hampton Roads, Virginia, and vicinity. Hampton Roads includes the ports of Norfolk, Portsmouth, Chesapeake, Newport News, and Hampton, Virginia.

Authority for Report.—Senate Committee on Public Works Resolutions adopted June 20, 1969, and June 24, 1974. House Public Works Committee Resolutions adopted October 3, 1968, and October 10, 1974.

Description of Recommended Plan.—The report recommends deepening the existing 45-foot channels to 55 feet, constructing a new 57-foot deep channel off Virginia Beach referred to as the Atlantic Ocean Channel, constructing three fixed mooring anchorage areas each capable of handling two vessels simultaneously, deepening the existing 40-foot portion of Elizabeth River and Southern Branch of Elizabeth River to 45 feet, deepening the existing 35-foot portion of Southern Branch to 40 feet up to the Gilmerton Bridge (River Mile 17.5) and providing an 800-foot turning basin at that point.

PHYSICAL DATA ON PROJECT FEATURES

Name	Depth (ft. m.l.w.)	Width (ft.)	Length (miles)	Quantity of dredged material (cubic yards)
Channels:				
Atlantic Ocean	57	1,000	10.6	13,278,000
Thimble Shoal	55	1,000	13.3	35,593,000
Norfolk Harbor	55	800–1,500	9.0	27,862,000
Channel to Newport News	55	800	4.8	11,187,000
Elizabeth River and Southern Branch	45	375–750	6.0	7,206,000
Southern Branch	40	250–500	2.5	2,235,000

Fixed Mooring Anchorage Facility.—Provision of three sets of dolphins each capable of handling two large vessels simultaneously. The mooring area will be dredged to a depth of 55 feet below mean low water requiring the removal of 1,374,000 cubic years of dredged material.

Turning Basin.—Provisions of an 800-foot turning basin at the terminus of the recommended 40-foot improvement on Southern Branch of Elizabeth River.

Views of States and Non-Federal Interests.—The Commonwealth of Virginia, Council on the Environment indicated that the Commonwealth of Virginia strongly supports the proposal to deepen the Norfolk Harbor and Channels. The Commonwealth also endorses the recommendation by the Corps of Engineers that dredged material be dumped at a site in the open ocean rather than at the Suffork site recommended earlier. The Council on the Environment further stated that concerns shared by the Marine Resources Commission and the State Water Control Board pertain to the possible effects of dredging upon sedimentation rates, salinity, and circulation primarily as these bear upon the abilities of the James and Elizabeth Rivers and the lower Chesapeake Bay to sustain oysters and other marine life. The Commonwealth Water Control Board indicated that sedimentation rates may increase the need for maintenence dredging. Salinity changes, compounded by low river flows, could harm the valuable James River oyster seedbeds, according to the Marine Resources Commission. The Marine Resources Commission and the Commonwealth Water Control Board requested that model testing be used to develop effective mitigation measures and to determine impacts upon shellfish and finfish as well as oyster seedbeds.

The Virginia Institute of Marine Science feels that the sampling pattern used to determine what is acceptable for ocean dumping does not appear sufficiently precise in making the distinction between acceptable and unacceptable material.

The Department of Highways and Transportation uses Craney Island as a disposal site and is gratified to see the ocean dumping alternative chosen for dredge spoil disposal. The Department would like to review the possibility of making use of dredged material for highway fill material.

With regard to the future of Craney Island, the Virginia Port Authority recommends monitoring the process of stabilization and concedes that transfer of the site to the Commonwealth would be premature at this time.

The Marine Resources Commission indicates that it has no permitting responsibilities with regard to this project, because of the project's Congressional authorization and the extraterritoriality of the ocean disposal site.

The primary concern of the above agencies is the lack of detailed information on possible environmental impacts. Because of funding and time constraints, most of the necessary studies had to be delayed. In this regard, extensive environmental studies are currently being conducted under continuation of planning and engineering to respond to these concerns. These studies were formulated with the assistance of the concerned agencies. The results will be presented in a Supplement to the Final Environmental Impact Statement.

View of Federal Agencies.—The U.S. Department of the Interior indicated that the environmental impacts associated with the proposed project have not been fully identified or assessed.

The U.S. Department of Commerce transmitted comments from the National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NMFS). In summary, NMFS referred to previous comments in which it stressed the need for appropriate environmental studies to answer questions relative to the project's impacts on the marine resources of the Lower James River and Chesapeake Bay. NMFS indicated that it understood that these studies would be conducted during the advanced engineering and design phase.

The U.S. Environmental Protection Agency is concerned that the environmental impacts related to channel deepening and dredging have not been quantitatively assessed. EPA feels that a quantitative assessment including modeling of potential impacts on water circulation, salinity patterns, and the impacts of finfish and shellfish must be made.

The U.S. Department of Agriculture indicated that the Board of Engineers for Rivers and Harbors' recommendation not to acquire and implement the Suffolk upland disposal area is more compatible with U.S. Department of Agriculture land use policy.

The U.S. Department of Transportation, United States Coast Guard, indicated it had no objections to the project.

The U.S. Department of Energy indicated that the reports and Final Environmental Impact Statement were detailed and comprehensive. It did mention that the feasibility report did not take into account recent developments in the steam coal market.

The Federal Energy Regulatory Commission indicated that there would not be any significant impacts on areas of electric power, natural gas, and oil pipeline industries from the proposed project.

The primary concern of the above agencies is the lack of detailed information on possible environmental impacts. Because of funding and time constraints most of the necessary studies had to be delayed. In this regard, extensive environmental studies are currently being conducted under Continuation of Planning and Engineering to respond to these concerns. These studies were formulated with the assistance of the concerned agencies. The results will be presented in a Supplement to the Final Environmental Impact Statement.

Status of Environmental Impact Statement (EIS).—The final EIS will filed with EPA on April 3, 1981.

Project Costs.—

Federal: $248,700,000.

Non-Federal: $250,300,000.

Estimated Annual O&M Costs (October 1982 price levels):

Federal: $6,844,000.

Non-Federal: $87,000.

Benefit/Cost Ratio.—3.6.

Description of Non-Federal Responsibilities.—Dredging of non-Federal channels and berthing areas. Relocation of utilities. Protection of tunnel. Modification of port facilities to accommodate larger vessels. Cash contribution.

Remarks.—Section 101 authorizes the Norfolk Harbor and Channels in accordance with the recommendations of the Chief of Engineers, including any modifications to the project recommended by the Secretary in the report or reports transmitted pursuant to the authorizing language.

The Secretary is directed to study, in consultation with appropriate Federal, State and local agencies, the effects that construction, operation and maintenance of each segment of the project will have on fish and wildlife resources and the need for mitigation. The Secretary is to transmit his report or reports on this study, together with recommendations for modifications determined to be necessary and appropriate for mitigation to the House Committee on Public Works and Transportation and the Senate Committee on Environment and Public Works not later than one year after the date of enactment of H.R. 3678. The Secretary may submit one report on the entire project or separate reports on the various segments of the project. The project may be constructed in segments. Except for funds from the Environmental Protection and Mitigation Fund, no funds may be appropriated for acquisition of land for or actual construction of any segment, until the acquisition and construction for that segment have been approved by resolutions adopted by the two Committees.

MOBILE HARBOR, ALA.

Location.—Mobile Harbor is in the extreme southwest corner of Alabama. The Port is located at the City of Mobile on the west bank of the Mobile River near its mouth.

Authority for Report.—House Public Works Committee resolution adopted June 24, 1965

Description of Recommended Plan.—The existing main bay channel would be deepened to 55 feet and widened to 550 feet; and an anchorage area and turning basin would be constructed. The recommended plan further provides for creation of 1,710 acres of fastland in the upper bay adjacent to Brookley Industrial Park and construction of mitigation measures for the taking of bay bottoms for the creation of fastland.

Physical Data on Recommended Project Features.—

Structural

(1) Deepen and widen the entrance channel over the bar to 57 by 700 feet, a distance of about 7.4 miles to the mouth of Mobile Bay.

(2) Deepen and widen Mobile Bay Channel to 55 by 550 feet from the mouth of Mobile Bay to a point about 3.6 miles south of Mobile River, a distance of about 27.0 miles

(3) From the above point south of Mobile River, deepen and widen an additional 4.2 miles of Mobile Bay Channel to 55 by 650 feet.

(4) provide a 55-feet deep anchorage area and a 55-foot deep turning basin in the vicinity of Little Sand Island just south of the Interstate Highway 10 tunnel.

(5) Construct a 1,710-acre diked fast land industrial expansion area from dredged material disposal adjacent to the Brookley industrial complex.

Environmental Features

Mitigation measures under consideration to offset losses from creation of 1,710 acres of fastland on bay bottom are:

(1) Enlarging the U.S. Highway 90 bridge to permit greater circulation in Chocaloochee Bay.

(2) Installing culverts under the causeway to McDuffie Island to improve circulation in Garrows Bend.

(3) Establishing salt marsh adjacent to south end of diked disposal area.

Views of States and Non-Federal Interests.—In response to the Chief's report, the Governor of Alabama endorsed the proposed project with the exception of the proposed cost-sharing of nonvendible purposes, the land enhancement costs issue, and the recommended mitigation measures. Environmental interests generally oppose the taking of 1,710 acres of bay bottom as a diked disposal area and the creation of fast land. The Alabama State Docks Department has expressed its intent to provide the traditional requirements of local cooperation. While the Docks Department supports the recommended plan as the preferred plan for ultimate harbor development, it requested that consideration be given to a transshipment facility in lower Mobile Bay. Implementation of such a facility would mean that Mobile could service 55-foot draft vessels at the earliest possible date and with substantial reductions in the scope of the recommended plan.

Views of Federal Agencies.—The U.S. Departments of Agriculture and Transportation have no objections to the project. The U.S. Departments of Interior and Commerce and the Environmental

Protection Agency strongly object to the conversion of over 1,700 acres of productive shallow water habitat to fastland by disposal of the dredged material. These agencies favor disposal in the Gulf of Mexico and feel that the proposed mitigation is not sufficient to offset resource losses. Gulf disposal would add $100 million to the project costs.

Status of Environmental Impact Statement (EIS).—Final EIS was filed with EPA on May 22, 1981.

Project Costs.—

Federal: $386,700,000.

Non-Federal: $130,624,000.

Estimated Annual O&M Costs (October 1982 price levels):

Federal: $2,737,000

Non-Federal: $630,400

Benefit/Cost Ratio.—1.3.

Description of Non-Federal Responsibilities.—Dredging of berths, disposal area dikes, an allocated cost of mitigation measures, and cash contribution.

Remarks.—Section 101 authorizes the Mobile Harbor project in accordance with the recommendations of the Chief of Engineers, with three modifications added by the Committee.

In view of the concerns expressed about disposing of dredged material in the Brookley disposal area in Mobile Bay, the authorization provides that for reasons of environmental quality the dredged material will be disposed of in open water in the Gulf of Mexico in accordance with all provisions of Federal law. This requires among other things, compliance with the provisions of the Ocean Dumping Act.

The second provision added by the Committee is designed to ensure that the Brookley disposal area will not be filled in by means other than the disposal of dredged material from the project, thereby eliminating the environmental benefits of requiring the project material to be disposed of in the Gulf of Mexico. This provision prohibits the disposal of any dredged or fill material in the Brookley disposal area. No permit may be issued under Section 404 of the Federal Water Pollution Control Act or Section 10 of the Rivers and Harbors Act of March 3, 1899, for the discharge of material into the area.

Finally, the authorization provides that if non-Federal interests construct a bulk material transshipment facility in lower Mobile Bay the Secretary, upon their request, may limit construction of the project from the Gulf of Mexico to the transshipment facility, thereby reducing the scope and cost of the project.

MISSISSIPPI RIVER SHIP CHANNEL, GULF TO BATON ROUGE, LA.

Location.—The project area is located in southeastern Louisiana generally along the Mississippi River from Baton Rouge to New Orleans to the Gulf of Mexico.

Authority for Report.—Senate Public Works Committee resolutions dated June 12, 1967, and December 13, 1971, and House Public Works Committee resolution dated October 19, 1967.

Description of Recommended Plan.—The existing deep-draft navigation channel in the Mississippi River would be deepened from 40 to 55 feet between Baton Rouge, Louisiana, and the Gulf of Mexico, and a turning basin would be provided at Baton Rouge. The effects of increased saltwater intrusion would be mitigated by the construction of a sill in the lower portion of the river and extension of some water intakes.

Physical Data of Project Features.—

a. The deep-draft navigation channel in the Mississippi River would be enlarged from its present project depth of 40 feet to a project depth of 55 feet between Baton Rouge, Louisiana, and the Gulf of Mexico;

b. The existing 35-foot channel along the left descending bank of the Mississippi River in New Orleans Harbor, between mile 86.7 and 104.5 would be enlarged to a project depth of 40 feet over a varying bottom width;

c. A turning basin would be provided at the upstream end of the enlarged channel in Baton Rouge, Louisiana;

d. Training works would be provided in one or more Mississippi River passes to redistribute flows to Southwest Pass to reduce maintenance of the deep-draft channel in the pass;

e. A submarine sill would be installed at approximately mile 64.1 in the Mississippi River during periods of very low flow to mitigate the effects of increased saltwater intrusion on waterworks in the New Orleans area;

f. The raw water intakes at East and West Pointe a la Hache (mile 49) would be extended up to the sill to mitigate the effects of the increased saltwater intrusion on municipal water supplies downstream of the sill; and

g. Sixty-four submarine pipelines and 18 submarine cable would be relocated, and 385 acres of land would be acquired for disposal of dredged material.

*Views of States and Non-Federal Interests.—*The State of Louisiana has established a task force to look into the engineering, environmental, economic and financial feasibility of the project, and has hired an engineering firm to perform the study. The State supports phased construction of the project. This is provided for in Section 107 of the bill.

*Views of Federal and Regional Agencies.—*The U.S. Environmental Protection Agency stated that the proposed project with the recommended mitigation features will significantly offset anticipated saltwater intrusion during periods of low flow and, therefore, satisfies the Agency's previous concerns.

The United States Coast Guard had no objections to the project.

The U.S. Department of the Interior expressed concern that the proposed report did not address the requirement that the Corps of Engineers obtain a right-of-way from the Fish and Wildlife Service (FWS) prior to conducting any work in the Delta National Wildlife Refuge. Issuance of a right-of-way will be contingent upon a determination by the FWS Regional Director that the proposed work will be compatible with purposes for which the Refuge was established. In instances where damages to the Refuge will result, the Regional Director may require mitigation measures within the right-of-way area or on adjacent FWS land. If the proposed use cannot be made compatible, no right-of-way will be granted. FWS authority to issue right-of-way is contained in Public Law 89–669 (80 Stat. 926:16 U.S.C. 663d) as amended.

The U.S. Department of Agriculture noted that the proposed project will have no adverse effect on agriculture.

Status of the Final Environmental Impact Statement (EIS).—The final EIS was filed with EPA on July 2, 1982.

Project Costs.—

Federal: $333,400,000.

Non-Federal Sponsor: $111,600,000.

Utility Owners: $80,000,000.

Estimated Annual O&M Costs (October 1982 price levels):

Federal: $130,000,000.

Non-Federal: $6,700,000.

Benefit/Cost Ratio.—8.1.

Description of Non-Federal Responsibilities: Non-Federal implementation costs include lands and damages for disposal areas, pipeline relocation, berthing areas, and a cash contribution.

Remarks.—In view of the concerns expressed by the Department of the Interior, the Committee has included language making it clear that nothing in the report or the authorizing language shall be construed to affect the requirements of Public Law 89–669, as amended.

TEXAS CITY CHANNEL, TEX.

Location.—Texas City Channel is located in Galveston Bay and serves the petrochemical industry in Texas City, Texas, which lies 10 miles northwest of Galveston and 35 miles southeast of Houston.

Authority for Report.—House Public Works Committee resolution, October 19, 1967.

Description of Recommended Plan.—The recommended plan provides for enlargement of Texas City Channel to 50 feet deep and 600 feet wide over its 6.7-mile length and enlargement of Galveston Harbor Channels to 50 feet or 52 feet deep and 800 feet wide over the 10.5-mile length. A 50-year dredged material disposal plan will be provided by a combination of containment of dredged material on Snake Island, establishment of 600 acres of wetland, enlargement of Texas City Dike, and deposition of both inshore an offshore material in the Gulf. Ninety acres of water-oriented recreational facilities are included as a part of the plan.

PHYSICAL DATA ON PROPOSED FEATURES

Reach	Name	Channel dimensions—	
		Depth and width	Length
1	Texas City turning basin	50 x 1,200	4,253
2	Texas City channel	50 x 600	12,547
3	Texas City channel	50 x 600	13,000
4	Texas City channel	50 x 700	10,430
5	Bolivar roads	50 x 800	4,703
6	Inner bar	50 x 800	17,262
7	Outer bar and entrance	52 x 800	33,838
8	Extended entrance	52 x 800	21,650
9	New entrance	52 x 600	44,000
	Emergency turning point	52 x 2,000	2,000

Combination Disposal Plan—50 years:

(1) Snake Island Disposal Area—containment of "polluted" maintenance dredging material.

(2) Wetland creation area—600 acres.

(3) Dike enhancement area—90 acres of new-work dredging material.

(4) Offshore disposal—"clean" maintenance material from Texas City after filling of wetland area.

(5) Offshore disposal—new-work and maintenance dredging material from Galveston Harbor Channels—only new-work material on a "one-time" basis in 3,000-acre undesignated site.

Texas City Dike Recreation Plan:

(1) 90-acre park constructed on Dike Enhancement area.

(2) Facilities include boat ramps, beach area, campsites, picnic sites, hike and bike trail, bathhouse, group shelter, playgrounds, parking, access roads, and landscaping.

(3) 1.6 million visitor days annual usage by year 2000.

Views of States and Non-Federal Interests.—After review of draft report and EIS, most Texas State agencies concur with the report. However, the Texas Department of Water Resources requested that a State Water Quality Certificate be sought. Texas Parks and Wildlife Department and other non-Federal interests expressed concern of potential toxic effects of using dredged material to create wetland areas and objected to 320 acres of bay bottom loss due to dike enhancement. Additionally, non-Federal interests expressed concerns about potential oil spills, and the project economic evaluation. Several environmental interests favor the non-structural plan. The final report and EIS contain an oil spill analysis and revised economic analyses. Business and industrial interests and the City of Texas City strongly endorse the recommended plan.

Views of Federal and Regional Agencies.—Field level review of Draft Environmental Impact Statement, comments received from: EPA; U.S. Fish & Wildlife Service; National Marine Fisheries Service; Public Health Service; U.S. Coast Guard; and Houston-Galveston Area Council.

Major issues raised	Corps responses
Potential toxic effects of using dredged material for wetland creation	Final test data indicate no problems. Future monitoring program developed.
Loss of bay bottom habitat for 320-acre dike enhancement area	Dike enhancement area reduced to 90 acres.
Object to channel widening due to loss of bay bottom habitat	Proper design requires channel widening. Bay bottom losses mitigated by wetland creation.
Lack of data for offshore disposal sites	Data added to FEIS.
Potential impact of oil spills	Oil spill impact analysis added to FEIS.
Questioned crude oil projections and economic evaluation	Revised projections and economic analysis used in final report.
Concern over vector problem from wetland creation	No significant problems anticipated.
Concern over salinity changes in Galveston Bay	Analysis indicates no significant change in salinity gradient due to channel enlargement.
Several agencies favored non-structural plan	Comparison made between structural and nonstructural plans.

Status of Environmental Impact Statement (EIS).—Final Environmental Impact Statement filed with EPA on March 18, 1983.

Project Costs.—

Federal Cost: $117,990,000.

Non-Federal:

Non-Federal Sponsor: $53,351,000.

Utility Owners: $179,000.

Estimated Annual O&M Costs (October 1982 price levels):

Federal: $4,682,000.

Non-Federal: $411,000.

Benefit/Cost Ratio.—3.9.

Description of Non-Federal Responsibilities.—Traditional non-Federal costs involve dredging of berths; relocations, levees and spillways (excluding certain costs for wetland creation), and a cash contribution.

Remarks.—Section 103 of the bill provides that, for any project authorized in Title I for which a final report of the Chief of Engineers has not been completed before the date of enactment, the Secretary shall transmit a copy of the final environmental impact statement, and any recommendations with respect to the project, to the House Committee on Public Works and Transportation and the Senate Committee on Environment and Public Works. Except for funds from the Environmental Protection and Mitigation Fund, no appropriations may be made for acquisition of land or for actual construction of the project until approved by Resolutions of the two Committees.

NEW YORK HARBOR AND ADJACENT CHANNELS, NEW YORK AND NEW JERSEY

The New York Harbor and adjacent channels project is located in the Upper and Lower Bays, New York Harbor. The Upper Bay extends southerly from the junction of Hudson and East Rivers opposite the Battery, New York City, a distance of about 5.5 miles, to the Narrows. The Lower Bay extends from the Narrows to the sea, a distance of about 9 miles. The existing project provides for Ambrose Channel, 45 feet deep, 2,000 feet wide, and about 10.2 miles long, extending from the sea to deep water in the Lower Bay; and for Anchorage Channel, a northward extension of Ambrose Channel, with the same depth and width, in the Upper Bay, opposite the anchorage grounds, with a length of about 5.7 miles; for a southerly entrance channel 35 feet deep and 800 feet wide from deep water in the Atlantic Ocean, through Bayside Channel, 35 feet deep and 800 feet wide to the junction with Main Ship Channel, about 7.1 miles long; for a Main Ship Channel, 30 feet deep and 1,000 feet wide extending from Bayside Channel to deep water in the Lower Bay, about 5.3 miles long; for the removal of Craven Shoal to a depth of 30 feet; for a channel 16 feet deep, 200 feet wide, and about 2.3 miles long, extending from Bell Buoy 23 to Hoffman and Swinburne Island; for an anchorage area in Red Hook Flats to depths of 45, 40, and 35 feet over an area of 928 acres and an anchorage in Gravesend Bay to a depth of 47 feet over an area of 334 acres; for an anchorage in the vicinity of Liberty (Bedloe's) Island, about 160 acres in area and 20 feet deep; and for a channel along the New Jersey Peirhead Line connecting Kill Van Kull with deep water in Anchorage Channel, south of the Liberty Island Anchorage, 20 feet deep for a width of 500 feet, with widening at bends to 800 feet, and a length of about 3 miles.

Section 101 authorizes the deepening of the Ambrose Channel feature of the project to 55 feet, with a width of 770 feet. It also authorizes the deepening of the Anchorage Channel feature of the project to 55 feet with a width of 660 feet. The increased depths are needed to accommodate deep draft vessels used in dry bulk and petroleum transoceanic trade and to support anticipated development of increased bulk steam coal movement in the harbor.

Any ocean disposal of dredged material other than rock, beach quality sand or material which is suitable for fill, must take place at a site at least 25 miles from the shoreline, unless the Secretary determines that an ocean site less than 25 miles from the shoreline is more suitable environmentally. This determination must be made in accordance with all applicable provisions of Federal law, including the Ocean Dumping Act. The requirements of that Act are not affected by the authorizing language for the project.

Disposal of beach quality sand shall take place at the ocean front on Staten Island, New York, and Sea Bright and Monmouth Beach, New Jersey, at full Federal expense.

The Committee recognizes the legitimate concerns of the New Jersey seashore communities regarding the ocean disposal of dredged material and wishes to ensure that the dredged material resulting from these projects is disposed of at the most suitable site.

Accordingly, the Committee determined that ocean disposal of dredged material should take place at least 25 miles from the shoreline unless another site less than 25 miles from the shoreline is more suitable for reasons of environmental quality and compliance with applicable provisions of Federal law, such as the Ocean Dumping Act.

Because the current disposal site, the "Mud Dump", may reach capacity in about 10 years, the search for a successor site or sites must be carried out in a timely fashion so that a new site is designated and available by the time use of the Mud Dump is discontinued.

In order to avoid delaying these critically needed projects, the Secretary shall study alternative sites for disposal of dredged material, as well as the environmental, economic, and technical feasibility of each site. No later than one year following enactment, the Secretary must submit to Congress the results of the study, which shall include a recommendation of the most appropriate disposal site or sites.

The Ocean Dumping Act and implementing regulations require that ocean disposal be carried out only at sites that have received interim or final designation from the Environmental Protection Agency or the Corps of Engineers. The project authorization is not intended to prevent the disposal of dredged material resulting from the maintenance of existing projects at any interim or permanently designated disposal site pending completion of site studies and the designation and availability of more suitable sites.

The Secretary is encouraged to make maximum use of those dredged materials that can contribute to enhancement of the environment and to regional economic development.

The Secretary is directed to study sites for the disposal of dredged material from the project in consultation with appropriate Federal, State and local agencies and to submit a report on the results of the study, along with recommendations for an appropriate disposal site, to the House Committee on Public Works and Transportation and the Senate Committee on Environment and Public Works. Except for funds from the Environmental Protection and Mitigation Fund, no appropriation for the acquisition of lands for, or the actual construction of, the project may be made unless approved by resolutions of the two Committees.

LOS ANGELES AND LONG BEACH HARBORS, SAN PEDRO BAY, CALIF.

The population in the area served by Los Angeles and Long Beach Harbors (the entire Pacific Southwest) increased from 10,700,000 in 1960 to about 22,500,000 in 1982. It is projected to increase to about 34,500,000 by the year 2000. Commerce through these harbors increased from about 32,000,000 tons in 1960 to over 64,000,000 tons in 1977. In the year 2000, commercial traffic is expected to reach 146,000,000 tons. Prevailing controlling depth in the harbor areas of Los Angeles Harbor complex is 35 feet and many vessels must await favorable tides to enter or depart. The outer harbor areas of the Los Angeles-Long Beach Harbor complex have potential for depths in the range of 80–100 feet. At present, there are only three ports in the United States (Los Angeles, Long Beach, and Seattle) where vessels in the 100,000 dead weight tons load range can be fully loaded at berth. Deepening the inner harbors and providing additional channels and turning basins in the outer harbors, offshore anchorage and loading facilities for tankers, and additional shallow-draft vessel facilities are needed.

As recommended in an interim report made under this study authorization, deepening Los Angeles Harbor to a controlling depth of 45 feet was authorized in 1976. A final report, which will include recommendations for optimum development of Los Angeles and Long Beach Harbors, is scheduled for completion in 1984.

Section 101 authorizes the deepening of the entry channel to the harbor of Los Angeles, California, to a depth of 65 feet, and the deepening of the entry channel to the harbor of Long Beach, California, to a depth of 76 feet.

Phase I of the project in the Los Angeles Harbor will result in the deepening of a 600-foot wide channel and the creation of approximately 270 acres of land from the dredge material.

Phases I and II of the year 2020 plan is based on cargo land use need projections contained in the ongoing Army Corps of Engineers Study (authorized by House Public Works Committee Resolution adopted July 10, 1968) of the Los Angeles-Long Beach Harbors, which forecasts a "shortfall of new land required" of 2,600 acres for the two ports. The Corps of Engineers has determined that the San Pedro Bay Ports will need to begin expansion in order to be able to handle projected cargo volumes of 223 million short tons in the year 2020, which is a threefold increase from present cargo throughputs.

Phase II of the 2020 plan will result in the deepening of the main entry channel in the Port of Los Angeles from the 600-foot width (Phase I) to 1200 feet, and the development of cargo handling facilities on land in the outer harbor created in Phase I of the project.

The new cargo handling facilities will include new coal handling facilities due to projected increased coal usage by the Pacific Rim countries and the development of other bulk storage and handling facilities, including relocating petroleum handling terminals, from inner harbor high density areas to the new low density outer harbor land fill sites created in Phase I. The transfer of such hazardous materials will be primarily for safety and environmental reasons, and will make possible the development of needed additional container handling facilities in inner harbor areas.

The need for dredging the Main Channel in the Port of Long Beach to 76 feet is immediate. Existing channel depths of 60 feet limit tanker vessels to 160,000-Dead-Weight-Tons (DWT). The size of vessels calling at a new marine oil terminal, where berthside depth is 76 feet and the wharf is designed to accommodate vessels up to 265,000 DWT, is limited to 160,000 DWT by the 60-foot channel depth.

Pursuant to the provisions of Section 103, the Secretary must transmit a copy of any required environmental impact statement, and any recommendations with respect to the project, to the House Committee on Public Works and Transportation and the Senate Committee on Environment and Public Works. Except for funds from the Environmental Protection and Mitigation Fund, no funds may be appropriated for acquisition of lands for, or actual construction of, the project until approved by resolutions of the two Committees.

SECTION 102

Section 102 authorizes the construction of 27 projects for the improvement of general cargo ports—ports with an authorized depth of 45 feet or less. Descriptions of these projects follow.

PORTSMOUTH HARBOR AND PISCATAQUA RIVER, N.H.

Location.—Portsmouth Harbor is formed by the mouth of the Piscataqua River and is located 45 miles northeast of Boston, Massachusetts, and 37 miles southwest of Portland, Maine. The river is about 13 miles long and locally forms the New Hampshire-Maine state boundary.

Authority for Report.—Senate Public Works Committee Resolution of April 23, 1970.

Description of Recommended Plan.—The recommended plan to meet the navigation needs of Portsmouth Harbor provides for widening the existing Federal deep-draft project at three areas. The recommended plan requires removal and disposal of 228,000 cubic yards of sand and gravel and 305,000 cubic yards of rock.

An upland disposal site in Newington, New Hampshire, proved to be the least environmentally sensitive and is recommended in the feasibility report. Subsequent correspondence, meetings, and studies have shown that this site is socially and politically unacceptable. Accordingly, further coordination is currently underway with the States of New Hampshire and Maine to determine the best available alternative site.

Physical data on Project Features.—

Structural

(1) *Main Ship Channel.*—Widen the existing turning basin, which is located between the vertical lift bridges near the western end of Badgers Island from 600 feet to 1,000 feet; widen by 100 feet the northern limit of the channel at the southern end of the abovementioned turning basin adjacent to Badgers Island; and widen from 400 feet to 550 feet the southern portion of the channel at the bend in the vicinity of Goat Island.

Views of States and Non-Federal Interests.—The Governor of New Hampshire requested that the proposed improvements be made as soon as possible. Widespread support comes from the private and public sectors of the Greater Portsmouth region including Kittery, Maine.

Views of Federal and Regional Agencies.—The Defense Logistics Agency and the United States Coast Guard support the project. The United States Navy has indicated its support. The timing of the blasting and dredging operations as proposed for the project has been the subject of coordination with the U.S. Fish and Wildlife Service and the U.S. Environmental Protection Agency.

Status of Environmental Impact Statement.—An Environmental Assessment dated July 1982 has been prepared in connection with the project.

Project Costs.—

Federal: $21,200,000.

Non-Federal: $0.

Estimated Annual O&M Costs.—The project requires channel widening at three areas. Based on experienced maintenance activity in the concerned areas, the incremental increase in the maintenance costs is negligible.

Benefit/Cost Ratio: 1.2.

Remarks.—Because of the unacceptability of the originally selected upland disposal site, the Committee has included language directing the Secretary, in consultation with appropriate Federal, State and local agencies, to study potential disposal sites necessary for construction, operation and maintenance of the project. Not later than one year after the date of enactment of the Act, the Secretary is to transmit a report on the results of the study, together with recommendations for modifications to the project determined to be necessary and appropriate to assure that adequate disposal sites are available, to the House Committee on Public Works and Transportation and the Senate Committee on Environment and Public Works.

The authorization for the project includes any modifications recommended by the Secretary as part of the above study, or as part of the recommendations transmitted pursuant to section 103. Except for funds from the Environmental Protection and Mitigation Fund, no funds may be appropriated for acquisition of lands for, or actual construction of, the project until approved by resolution of the two Committees.

NEW HAVEN HARBOR, CONN.

Location.—New Haven Harbor is an estuary extending northerly into south-central Connecticut and on the north-central shore of Long Island Sound. The shorefront cities of New Haven and West Haven abut the harbor, forming its North, East and West boundaries.

Authority for Report.—House and Senate Public Works Committee resolutions of December 14, 1950, and April 23, 1954, respectively.

Description of Recommended Plan.—The plan selected to meet navigation needs of New Haven Harbor provides for deepening and widening the existing Federal navigation project. The plan requires removal and disposal of about 4.4 million cubic yards of soft dredged material and about 27,200 cubic yards of rock. Disposal of suitable material would be in a man-made hole in Morris Cove on the Harbor's east side; and the remaining dredged material (about 80 percent of the total) would be placed at the approved Long Island Sound Central Disposal Site, located about 6 miles south of the harbor entrance.

Physical Data on Project Features.—

Structural

(1) *Main Ship Channel.*—Deepen to 40 ft. for about 6 miles; widen to 500 ft. for about 4 miles; realign upper 9,700 ft; and widen bend at Southwest Ledge to a minimum of 780 ft.

(2) *Turning Basin at the Head of Navigation.*—Provide an octagonal common turning basin about 1,200 ft. wide and 40 ft. deep.

(3) *Dredging and Disposal of Materials.*—Dredge site. Remove 4.4 million cubic yds. of soft materials. Remove 27,700 cubic yards of rock. Disposal sites. Morris Cove hole—900,000 cubic yds.

Views of States and Non-Federal Interests.—The Governor of Connecticut endorsed the recommended plan.

The local oyster industry has expressed concern about the possible adverse impact the project may have on existing oyster beds. These concerns involve potential changes in currents and the wave climate over the beds.

Views of Federal and Regional Agencies.—Comments on the proposed report of the Chief of Engineers were received from the Departments of the Interior, Commerce, and Transportation (United States Coast Guard), and the U.S. Environmental Protection Agency. Primary concerns involved the economic impact of the project on the oyster industry, the adequacy of the mitigation plan and disposal methods. The Chief of Engineers, in his final report, recommended that, during preconstruction planning, the Division Engineer closely coordinate with the oyster industry and concerned government agencies to (a) explore all feasible means of replacing oyster habitat lost through project implementation, (b) develop a plan that minimizes or eliminates loss of productivity to the oyster industry, and (c) quantify any residual national economic development losses to the industry.

Status of Environmental Impact Statement (EIS).—The Final EIS was filed with EPA December 18, 1981.

Projects Costs.—

Federal: $23,000,000.

Non-Federal: $1,000,000.

Estimated Annual O&M Costs (October 1982 price levels):

Federal: $390,000.

Non-Federal $0.

Benefit/Cost Ratio.—2.4.

Remarks.—In view of the concerns expressed about the effects of the project on the oyster industry, the Committee has directed the Secretary, in consultation with appropriate Federal, State and local agencies, to study the effects that construction, operation and maintenance of the project will have on oyster beds and the production of oysters in New Haven Harbor. The report on the study, along with any recommendations for modification to the project determined necessary and appropriate by the Secretary to mitigate adverse effects on oyster beds and production, is to be transmitted within one year from date of enactment to the House Committee on Public Works and Transportation and the Senate Committee on Environment and Public Works.

The project authorization includes any modifications recommended by the Secretary in the report. Except for funds from the Environmental Protection and Mitigation Fund, no appropriations may be made for acquisition of lands for or actual construction of, the project until approved by resolutions of the two Committees.

GOWANUS CREEK CHANNEL, N.Y.

Location.—The Gowanus Creek is a tidal estuary which connects the New York Harbor entrance channel with the interior of the County of Brooklyn, New York City.

Authority for Report.—House Public Works Committee Resolution adopted October 10, 1974.

Description of Recommended Plan.—Existing Main Channels to be deepened to 40 feet, 35 feet and 32 feet below mean low water at various sections; the existing Branch Channel would also be deepened to 40 feet below mean low water.

Views of States and Non-Federal Interests.—The New York State Department of Environmental Conservation expressed some concerns about the draft Environmental Impact Statement (EIS). A mutually satisfactory solution has been worked out and these concerns have been addressed in the final EIS.

The New York State Department of Environmental Protection and local Staten Island residents are concerned over the recommended disposal area at the City's Fresh Kills Sanitary Landfill in Staten Island. It has been agreed that additional pollution testing will be done in post-authorization work.

Views of Fedeal and Regional Agencies.—The U.S. Environmental Protection Agency and U.S. Department of the Interior, Fish and Wildlife Service, offered no objections to the recommended project.

Status of Final Environmental Impact Statement.—The Final EIS was filed with EPA on May 5, 1982.

Project Costs.—

Federal: $2,000,000.

Non-Federal: $1,200,000.

The 40-foot depth in the entrance apron and the 40-foot depth in the Branch Channel would initially serve a single beneficiary on the Branch channel, although depths to 35 feet in the entrance apron serve multiple beneficiaries. Non-Federal interests would have to bear annual payments for one-half the cost of the increment assigned to the single beneficiary until such time as acceptable multiple use of the Branch Channel occurs. This annual cost is currently estimated to be $38,000,000.

Estimated Annual O&M Costs (October 1982 price levels):

Federal: $8,800.

Non-Federal: $4,200.

Benefit/Cost Ratio.—13.8.

Remarks.—Section 105g provides that the cost sharing provisions set forth in subsections 105 (a), (b), (c) and (d) shall not apply to the Gowanus Creek project. This preserves the traditional cost sharing for single user benefits which is recommended in the report of the Chief of Engineers.

KILL VAN KULL, NEW YORK AND NEW JERSEY

Location.—Kill Van Kull and Newark Bay are segments of New York Harbor. Kill Van Kull stems off the western side of Upper New York Bay forming a waterway boundary between Staten Island, New York and Bayonne, New Jersey. Newark Bay in turn stems off Kill Van Kull in a northerly direction. Both the Kill Van Kull and Newark Bay are located within 5 to 8 miles southwest of the New York City Battery.

Authority for Report.—House resolution adopted June 14, 1972.

Description of Recommended Plan.—Deepening the existing Federal channels in the Kill Van Kull and Newark Bay to 45 feet (MLW) and widening these channels at selected points.

Physical Data on Project Features.—Construction dredging of about 5 miles of the Kill Van Kull Channel to 45 feet with widenings at Robbins Reef, St. George and Newark Bay; construction dredging of about 3 miles of the Newark Bay Main Channels to 45 feet, with widenings at the site of the Central Railroad Bridge (being removed by U.S. Coast Guard) and the junction with Port Newark Channel, also a turning basin at Port Elizabeth; construction dredging of about 4.5 miles of pierhead channels at Port Newark, Port Elizabeth, also at 45 feet. Disposal of about 30 million cubic yards of materials at sea.

Views of State and Non-Federal Interests.—The State of New Jersey stated support of the recommended improvement and urged study completion and Congressional authorization at the earliest possible date. The Port Authority of New York and New Jersey and marine industry representatives support the project.

Views of Federal and Regional Agencies.—The U.S. Environmental Protection Agency (EPA) has expressed reservations concerning the disposal of dredged material in the Atlantic Ocean. EPA recommends that the final decision on dredged material disposal be deferred until after detailed post-authorization studies. EPA also recommends post-authorization hydraulic modeling and further fish and wildlife investigation. EPA desires all results to be coordinated in a supplement to the EIS. The Fish and Wildlife Service (F&WS) has submitted a report surveying fish and wildlife resources and impacts in the study area. The Service requested bioassays and bioaccumulation testing before authorization. In accordance with the EPA and F&WS recommendations outlined above, testing will be done during post-authorization disposal studies. The F&WS also requested seasonal dredging restrictions and selection of a plan of lesser depth (40 feet). The data in this report do not support either of the above measures. Additionally, the F&WS requested creation of 250 acres of wetland to mitigate against the inclusion of 250 acres of bottom area in the project. The Corps finds no demonstrable net loss to the environment due to acreage inclusion and, therefore, no basis to recommend mitigation.

Status of Final Environmental Impact Statement.—The Final EIS was filed with EPA on July 31, 1981.

Project Cost.—

Federal: $182,665,000.

Non-Federal: $46,335,000.

Estimated Annual O&M Costs (October 1982 price levels):

Federal: $870,000.

Non-Federal: $50,000.

Benefit/Cost Ratio.—6.9.

Remarks.—Any ocean disposal of dredged material other than rock, beach quality sand or material which is suitable for fill, must take place at a site at least 25 miles from the shoreline, unless the Secretary determines that an ocean site less than 25 miles from the shoreline is more suitable environmentally. This determination must be made in accordance with all applicable provisions of Federal law, including the Ocean Dumping Act. The requirements of that Act are not affected by the authorizing language for the project.

The Committee recognizes the legitimate concerns of the New Jersey seashore communities regarding the ocean disposal of dredged material and wishes to ensure that the dredged material resulting from these projects is disposed of at the most suitable site.

Accordingly, the Committee determined that ocean disposal of dredged material should take place at least 25 miles from the shoreline unless another site less than 25 miles from the shoreline is more suitable for reasons of environmental quality and compliance with applicable provisions of Federal law, such as the Ocean Dumping Act.

Because the current disposal site, the "Mud Dump", may reach capacity in about 10 years, the search for a successor site or sites must be carried out in a timely fashion so that a new site is designated and available by the time use of the Mud Dump is discontinued.

In order to avoid delaying these critically needed projects, the Secretary shall study alternative sites for disposal of dredged material, as well as the environmental, economic, and technical feasibility of each site. No later than one year following enactment, the Secretary must submit to Congress the results of the study, which shall include a recommendation of the most appropriate disposal site or sites.

The Ocean Dumping Act and implementing regulations require that ocean disposal be carried out only at sites that have received interim or final designation from the Environmental Protection Agency or the Corps of Engineers. The project authorization is not intended to prevent the disposal of dredged material resulting from the maintenance of existing projects at any intrim or permanently designated disposal site pending completion of site studies and the designation and availability of more suitable sites.

The Secretary is encouraged to make maximum use of those dredged materials that can contribute to enhancement of the environment and to regional economic development.

The Secretary is directed to study sites for the disposal of dredged material from the project in consultation with appropriate Federal, State and local agencies and submit a report on the results of the study, along with recommendations for an appropriate disposal site, to the House Committee on Public Works and Transportation and the Senate Committee on Environment and Public Works. Except for funds from the Environmental Protection and Mitigation Fund, no appropriation for the acquisition of lands for, or the actual construction of, the project may be made unless approved by resolutions of the two Committees.

NEW YORK HARBORS AND ADJACENT CHANNELS, NEW YORK AND NEW JERSEY

The New York Harbor and Adjacent Channels Project is located in the Upper and Lower Bays, New York Harbor. The Upper Bay extends southerly from the junction of the Hudson and East Rivers, opposite the New York City Battery, a distance of about 5.5 miles, to the Narrows. The Lower Bay extends from the Narrows to the sea, a distance of about 9 miles. The existing project provides for Ambrose Channel, 45 feet deep, 2,000 feet wide, and about 10.2 miles long, extending from the sea to deep water in the Lower Bay; and for Anchorage Channel, a northward extension of Ambrose Channel, with the same depth and width, in the Upper Bay, opposite the anchorage grounds, length about 5.7 miles; for a southerly entrance channel 35 feet deep and 800 feet wide from deep water in the Atlantic Ocean, through Bayside Channel, 35 feet deep and 800 feet wide to the junction with Main Ship Channel, length about 7.1 miles; for Main Ship Channel, 30 feet deep and 1,000 feet wide extending from Bayside Channel to deep water in the Lower Bay, about 5.3 miles long; for the removal of Craven Shoal to a depth of 30 feet; for a channel 16 feet deep, 200 feet wide, and about 2.3 miles long, extending from Bell Buoy 23 to Hoffman and Swinburne Island; for an anchorage area in Red Hook flats to depths of 45, 40, and 35 feet over an area of 928 acres and an anchorage in Gravesend Bay to a depth of 47 feet over an area of 334 acres; anchorage in the vicinity of Liberty (Bedloe's) Island (about 160 acres in area) 20 feet deep; and for a channel along with New Jersey pierhead line connecting Kill Van Kull with deep water in Anchorage channel, south of the Liberty Island Anchorage, 20 feet deep for a width of 500 feet with widening at bends to 800 feet and a length of about 3 miles.

Section 102 authorizes two improvements to the overall project. One consists of an access channel 45 feet deep and 450 feet wide to extend from deep water in the Anchorage Channel westward approximately 12,000 feet along the southern boundary of the Port Jersey Peninsula to the head of navigation in Jersey City, New Jersey, at an estimated cost of $25,000,000. The other consists of a channel 42 feet deep and 300 feet wide extending from deep water in the Anchorage Channel westward approximately 11,000 feet to the head of navigation in Claremont Terminal Channel, at an estimated cost of $14,000,000.

Any ocean disposal of dredged material other than rock, beach quality sand or material which is suitable for fill, must take place at a site at least 25 miles from the shoreline, unless the Secretary determines that an ocean site less than 25 miles from the shoreline is more suitable environmentally. This determination must be made in accordance with all applicable provisions of Federal law, including the Ocean Dumping Act. The requirements of that Act are not affected by the authorizing language for the project.

The Committee recognizes the legitimate concerns of the New Jersey seashore communities regarding the ocean disposal of dredged material and wishes to ensure that the dredged material resulting from these projects is disposed of at the most suitable site.

Accordingly, the Committee determined that ocean disposal of dredged material should take place at least 25 miles from the shoreline unless another site less than 25 miles from the shoreline is more suitable for reasons of environmental quality and compliance with applicable provisions of Federal law, such as the Ocean Dumping Act.

Because the current disposal site, the "Mud Dump", may reach capacity in about 10 years, the search for a successor site or sites must be carried out in a timely fashion so that a new site is designated and available by the time use of the Mud Dump is discontinued.

In order to avoid delaying these critically needed projects, the Secretary shall study alternative sites for disposal of dredged material, as well as the environmental, economic, and technical feasibility of each site. No later than one year following enactment, the Secretary must submit to Congress the results of the study, which shall include a recommendation of the most appropriate disposal site or sites.

The Ocean Dumping Act and implementing regulations require that ocean disposal be carried out only at sites that have received interim or final designation from the Environmental Protection Agency or the Corps of Engineers. The project authorization is not intended to prevent the disposal of dredged material resulting from the maintenance of existing projects at any interim or permanently designated disposal site pending completion of site studies and the designation and availability of more suitable sites.

The Secretary is encouraged to make maximum use of those dredged materials that can contribute to enhancement of the environment and to regional economic development.

The Secretary is directed to study sites for the disposal of dredged material from the project in consultation with appropriate Federal, State and local agencies and submit a report on the results of the study, along with recommendations for an appropriate disposal site, to the House Committee on Public Works and Transportation and the Senate Committee on Environment and Public Works. Except for funds from the Environmental Protection and Mitigation Fund, no appropriation for the acquisition of lands for, or the actual construction of, the project may be made unless approved by resolutions of the two Committees.

WILMINGTON HARBOR-NORTHEAST CAPE FEAR RIVER, N.C.

Location.—The project area is in Southeastern North Carolina, at Wilmington, North Carolina.

Authority for Report.—Two Senate Public Works Committee resolutions of March 31, 1967; and House Public Works Committee resolutions of October 19, 1967, and April 25, 1978.

Description of Recommended Plan.—The recommended navigation improvements include widening 1.5 miles of ship channel, deepening another 1.7 miles of ship channel, and widening a turning basin. The recommended environmental improvements include acquiring, by easements or fee title, about 2,800 miles of wetlands, river bluffs, and ecotones. The proposed plan also provides for a minimum number of specially designed corridors across the wetlands for industrial access to the river.

Physical Data on Project Features.—

Structural

a. The Fourth East Jetty Channel (38 feet x 400 feet) would be widened to 500 feet for approximately 1.5 miles.

b. The channel from Castel Street to the N.C. 133 Bridge (32 feet deep) would be deepened to 35 feet, approximately 1.7 miles.

c. The turning basin just above the mouth of the Northeast Cape Fear River (800 feet by 1,000 feet by 30 feet deep) would be widened and deepened to 900 feet by 1,000 feet by 35 feet deep.

Environmental Features

Acquisition of about 2,800 acres of wetlands, river bluffs, and ecotones.

Overall environmental quality for the area is expected to be improved, when compared to the without-project condition.

Views of States and Non-Federal Interests.—The State of North Carolina supports implementation of the project and has expressed its intent to provide the traditional items of local cooperation.

Views of Federal and Regional Agencies.—All Federal agencies contacted have no objection to the navigation improvements with purchase of environmental lands.

Status of Environmental Impact Statement (EIS).—The Final EIS was filed with EPA on February 5, 1980.

Project Costs.—

Federal: $8,078,000.

Non-Federal: $1,320,000.

Description of Non-Federal Implementation Costs.—Furnish dredge material disposal areas, diking disposal areas, 25 percent of environmental lands cost.

Estimated Annual O&M Cost (October 1982 price levels):

Federal: $37,000.

Non-Federal: $47,000.

Benefit/Cost Ratio.—2.5.

Remarks.—The plan that maximizes net benefits to national economic development (NED) provides for widening 1.5 miles of ship channel, deepening another 1.7 miles of ship channel, and widening a turning basin. The NED plan includes no environmental features. The recommended plan was selected to protect and enhance the nationally recognized swamp forest and marshes of the Northeast Cape Fear River while permitting the same level of economic development as the NED plan. The plan adopted by the Committee makes these contributions to environmental quality at a reasonable cost and the monetary benefits are believed to at least equal these costs. The recommended plan also has the strong support of State and local interests.

Beneficial effects of the plan adopted by the Committee include the preservation of ecosystem productivity and management of the nationally significant environmental resources values in a way that is compatible with maintaining navigation interests. Preservation of cultural resources and national beauty of the project area is also a beneficial effect.

CHARLESTON HARBOR, S.C.

Location.—Charleston Harbor is located midway along the South Carolina Coast at Charleston, South Carolina.

Authority for Report.—Section 101 of the Water Resources Development Act of 1976.

Description of Recommended Plan.—Existing project would be deepened to 42 feet in outer bar, 40 feet in inner channel, 38 feet in Shipyard River. The recommended plan also includes some channel and basin widening.

Physical Data on Project Features.—

Structural

Existing channels will be deepened, with some additional widening. Annual maintenance will be required to keep channels at authorized project depths.

Environmental Features:

Mitigation of 10 acres of lost wetland.

Views of States and non-Federal Interests.—State of South Carolina supports the project. The South Carolina State Ports Authority expressed its intent to provide the traditional items of local cooperation.

Views of Federal and Regional Agencies.—The U.S. Environmental Protection Agency favors the recommended plan, but the U.S. Department of Interior has concerns about ocean disposal of the dredged material. Both agencies desire mitigation for the loss of 10 acres of wetlands under the recommended plan. The Chief of Engineers replied that the Corps believes the impacts from ocean disposal will not be significant and that a mitigation plan is now included in the project.

Status of Environmental Impact Statement (EIS).—The Phase I General Design Memorandum contains a Supplemental Information Report on the Final EIS filed in April of 1976. The Supplemental Information Report was filed on March 24, 1981.

Project Costs.—

Federal: $79,055,000.

Non-Federal: $1,829,000.

Description of Non-Federal Implementation Costs.—Dredging of berths and right-of-ways.

Estimated Annual O&M Cost (October 1982 price levels):

Federal: $3,719,000.

Non-Federal: $113,000.

Benefit/Cost Ratio.—1.9.

Remarks.—The authorization for the Charleston Harbor project includes construction of a 2-mile extension of the harbor navigation channel in the Wando River to the State port authority's Wando River Terminal.

SAVANNAH HARBOR, GA.

Location.—Savannah Harbor, Georgia, is located in Chatham County, Georgia, on the South Atlantic Coast 75 miles south of Charleston Harbor, South Carolina, and 120 miles north of Jacksonville Harbor, Florida.

Authority for Report.—House Public Works Committee resolution adopted July 10, 1968.

Description of Recommended Plan.—The recommended plan provides for modification of the harbor by widening the navigation channel between the present upstream limit of the 500-foot channel (Fig Island Turning Basin) and the King's Island Turning Basin from 400 to 500 feet.

Physical Data on Project Features.—Channel widening from 400 to 500 feet for a distance of 5.6 miles. Dredging and disposal of 3 million cubic yards of material requiring 309 acres of land. Widening will require an additional 27 acres of shoreline.

Views of States and Non-Federal Agencies.—The State of Georgia supports the project. Chatham County has expressed its intent to provide the traditional items of local cooperation.

Views of Federal and Regional Agencies.—The U.S. Departments of Commerce and Interior and the U.S. Environmental Protection Agency have no objections to the project.

Status of Environmental Impact Statement (EIS).—The Final EIS was filed with EPA March 20, 1981.

Project Costs.—

Federal: $12,701,000.

Non-Federal: $6,105,000.

Description of Non-Federal Implementation Costs.—Lands will be provided for disposal areas, including necessary retaining dikes, wasteweirs, and bulkheads.

Estimated Annual O&M Cost (October 1982 price levels):

Federal: $0.

Non-Federal: $0.

Benefit/Cost Ratio.—1.8.

Remarks.—The authorization provides that non-Federal interests will be reimbursed for moving or modifying locks, bulkheads, warehouses, towers, and railroad facilities necessary for project construction. The reimbursement is to be based on replacement costs, exclusive of betterment, minus the fair market value of the existing structures.

MANATEE HARBOR, FLA.

Location.—Manatee Harbor is on the southern shoreline of Tampa Bay, near the entrance to the Gulf of Mexico. The harbor is in Manatee County which is about midway along the west coast of Florida.

Authority for Report.—House Public Works Committee Resolution adopted April 11, 1974.

Description of Recommended Plan.—The recommended plan would modify the authorized Tampa Harbor Project to include a 400-ft. wide by 40-ft. deep channel at Manatee Harbor. The plan includes construction of an enlarged widener and turning basin for safer navigation. All material from initial construction and future maintenance operations would be placed in diked upland disposal areas adjacent to the harbor. To mitigate the 6.6 acres of shallow bay bottom lost in enlarging the turning basin, 10 acres of the emergent near shore disposal island would be excavated two feet below mean low water.

Physical Data on Project Features.—

Structural

Maintain entrance channel, and construct enlarged widener and turning basin to reduce transportation costs and provide safe navigation, respectively. Also, acquisition of lands, easements and rights-of-way for upland placement of dredged material.

Environmental

Mitigation on separable lands for enlarging the turning basin.

Views of States and Non-Federal Interests.—The State of Florida has no objection to the report being transmitted to Congress provided its concerns regarding mitigation and port development are included. The Manatee Port Authority expressed its intent to provide the traditional items of local cooperation.

Views of Federal and Regional Agencies.—The U.S. Departments of Interior, Energy, and Transportation have no objection to the project. The U.S. Environmental Protection Agency expressed no significant environmental reservations to the proposal. The Department of Commerce expressed concern that seagrass might not establish itself naturally in the excavated area.

Status of Final Environmental Impact Statement (EIS).—Notice of the final EIS appeared in the Federal Register on September 28, 1979.

Project Costs.—

Federal: $12,158,500.

Non-Federal: $3,091,500.

Description of Non-Federal Implementation Costs.—Dredging of berthing areas, and costs associated with diking, weirs, and drainage of the upland disposal areas.

Estimated Annual O&M Cost (October 1982 price levels):

Federal: $113,000.

Non-Federal: $50,000.

Benefit/Cost Ratio.—7.7.

Remarks.—Current problems attending navigation relate to vessel safety and efficiency of operation. The Manatee Harbor channel was constructed by local interests to a depth of 40 feet. Continued shoaling in this channel has reduced channel depths and is resulting in inefficient vessel operations. In addition, the harbor pilots have restricted larger vessel movements to periods of slack tide due to navigational hazards associated with inadequate wideners and turning basins.

The State of Florida and the National Marine Fisheries Service of the U.S. Department of Commerce expressed concern that seagrass might not establish itself naturally in the 10-acre area proposed to be excavated to a shallow depth for mitigation of project-caused losses to the seagrass community. The Committee has accordingly included the requirement that the Secretary, in consultation with appropriate Federal, State and local agencies, study the effects of construction, operation and maintenance of the project on the benthic environment. A report on the study, together with recommendations for modifications determined necessary and appropriate by the Secretary for mitigation of adverse effects on the benthic environment, is to be submitted within one year to the House Committee on Public Works and Transportation and the Senate Committee on Environmental Protection and Mitigation Fund, no appropriations may be made for acquisition of lands for, or actual construction of, the project until approved by resolutions of the two Committees.

TAMPA HARBOR, EAST BAY CHANNEL, FLA.

Location.—East Bay Channel is located in the northeast section of Tampa Harbor between Hillsborough and McKay Bays.

Authority for Report.—House and Senate Public Works Committee Resolutions adopted June 23, 1971, and April 6, 1971, respectively.

Description of Recommended Plan.—The proposed channel for proposed maintenance is 300 feet wide and approximately 5,000 feet long, terminating in an irregular shaped basin. The channel is aligned along the western side of the bay with the turning basin at the northern end. The proposed maintenance would provide 34 feet of depth in the waterway.

Physical Data on Project Features.—

Structural

Maintenance of navigation channels and turning basin resulting in reduced transportation costs.

Views of States and Non-Federal Interests.—The Florida Department of Environmental Regulation expressed concern over the resuspension, containment, and disposal of contaminated bottom sediments during maintenance operations. The Tampa Port Authority indicated its support for the East Bay Project and accepted the local cooperation requirements.

Views of Federal and Regional Agencies.—Comments received concerned introducing toxic dredged materials into the water column during maintenance dredging operations. The Chief of Engineers replied that monitoring will be performed and if significant adverse effects occur, operations will be suspended or restricted until a responsible course of action is determined.

Status of Environmental Impact Statement.—An environmental assessment (May 1977) has been prepared.

Project Costs.—(These are average annual costs for maintenance, which is anticipated to be required every six years. The initial construction was accomplished by non-Federal interests.)

Federal: $423,000.

Non-Federal: $216,000.

Description of Non-Federal O & M Costs.—Maintenance of berthing areas and disposal area dikes.

Benefit-to-Cost Ratio.—3.6.

Remarks.—The initial cost for the first maintenance dredging is $2,717,000.

SAN JUAN HARBOR, PUERTO RICO

Location.—San Juan Harbor is located on the north coast of Puerto Rico, about 75 miles from the island's west end. It is the only harbor on the north coast which affords protection in all weather. The harbor is about 3 miles long in a southeasterly direction and varies in width from 0.6 to 1.6 miles.

Authority for Report.—

Original feasibility study: September 3, 1964, House Committee on Public Works Resolution.

Phase I General Design Memorandum: The Water Resources Development Act of 1976, Public Law 94-587.

Description of Recommended Plan.—The plan for navigation improvements at San Juan Harbor recommended in the General Design Memorandum is a modified version of the plan recommended in the 1976 Survey Report and would provide for the following:

(a) Modifying Bar Channel to a maximum width of 800 feet, deepening it to 48 feet, shifting the centerline 350 feet west, and providing a compound widener that will give 1,300 feet of width at the intersection with Anegado Channel.

(b) Deepening Anegado Channel in steps to 40 feet, reducing its width to 800 feet, and easing the bend at the junction with Army Terminal Channel.

(c) Deepening Army Terminal Channel to 40 feet, widening the channel to 450 feet, and easing the bend at the junction of Army Terminal and Puerto Nuevo Channels.

(d) Deepening Puerto Nuevo Channel to 40 feet, widening it to 450 feet, easing and westward shifting of the bend at the intersection of Puerto Nuevo and Graving Dock Channels, and providing 4 feet of overdepth dredging over a 600,000-square-foot area within the bend and west of the mouth of Rio Puerto Nuevo as advanced maintenance in that shoaling area.

(e) Deepening Graving Dock Channel to 36 feet and widening it to 450 feet.

(f) Extending the limits of the Federal project in San Antonio Channel 1,500 feet further east and deepening both the San Antonio Channel and the extension to 36 feet at various widths, with a minimum width of 500 feet.

(g) Deepening the Cruise Ship Basin to 36 feet with an irregular width, between San Antonio Channel and the cruise ship piers on the south side of Old San Juan.

(h) Deepening and maintaining Sabana Approach to a depth of 32 feet and a width of 250 feet.

(i) Providing a 38-foot depth in Anchorage Area E and mooring dolphins for vessels using the area.

(j) Mitigating the loss of 22 acres of shallow-bottom habitat. Approximately 11,100,000 cubic yards of material would be excavated in providing the recommended navigation improvements. Of this, 10.1 million cubic yards of soft materials, predominantly clay, would be excavated from inner harbor channels. The remaining 1 million cubic yards, predominantly sand and rock, would come from Bar Channel improvements. Some blasting would be required to facilitate rock removal. All material would be placed on barges and deposited 2.8 miles offshore and northwest of the harbor entrance. The ocean disposal area is approximately 5,000 square feet and has bottom depths in excess of 600 feet.

Physical Data on Project Features.—

Structural

Deepened navigation channels and turning basins, resulting in reduced transportation costs.

Environmental Features

Creation of 22 acres of shallow-bottom habitat for algae formation (mitigation).

Views of States and Non-Federal Interests.—The Puerto Rico Ports Authority agreed to provide the traditional items of local cooperation. The Puerto Rico Department of Natural Resources raised questions concerning the credibility of the bioassays conducted and concerning the possibility of increased erosion of coastal areas west of the channel and in the harbor as a result of being exposed more directly to wave action when the entrance channel is shifted. The Chief of Engineers replied that it is doubtful that the realignment of the channel would affect the wave climate, that the bioassays were performed in accordance with established guidelines, and that additional bioassays to the satisfaction of EPA will be conducted prior to construction.

Views of Federal and Regional Agencies.—The Department of Interior disagreed with the Chief of Engineers' recommendations on the plan's mitigation features and felt that further study was appropriate to determine the best site and methodology for constructing the mitigation area. The United States Coast Guard felt that deepening and shifting the centerline of the bar channel would definitely increase navigation safety. EPA and the Department of Agriculture had no objections.

Status of Environmental Impact Statement.—The Final Environmental Impact Statement was filed with the Council on Environmental Quality in August of 1976. Review of San Juan harbor project modifications as recommended in the Phase I Report show some areas of difference, particularly with regard to excavation in the Bar Channel, which have been addressed in a Final Supplement to the Final EIS.

Project Costs.—

Federal: $72,791,000.

Non-Federal: $2,042,000.

Description of Non-Federal Implementation Costs.—Dredging of berthing area.

Estimated Annual O&M Cost (October 1982 price levels):

Federal: $1,110,000.

Non-Federal: $0.

Benefit-to-Cost Ratio.—5.8.

Remarks.—Depths, widths, and wideners for the entrance and interior harbor channels are inadequate for the vessels presently engaged in San Juan Harbor commerce. Trends in fleet makeup towards larger deeper draft vessels will not only complicate already hazardous navigation conditions, but also result in increased inefficiencies in the use of the harbor's facilities. The Puerto Rico Ports Authority originally requested and has continuously supported the Corps' efforts to develop a feasible plan for modifying the existing Federal navigation project. Navigation improvements would not only reduce the possibility of future vessel accidents, but enable San Juan to continue its vital economic role as the Commonwealth's principal harbor.

The recommended project provides for deepening the Bar Channel to 48 feet. The incremental depth beyond 45 feet is required for the safety of vessels and is not included for the purpose of accommodating vessels requiring a depth of more than 45 feet. The project is therefore included in Section 102 as a general cargo port, and the cost sharing for projects with depths greater than 45 feet, set forth in section 105, does not apply. Section 110(2) defines a general cargo port as any port authorized in section 102, as well as any other port authorized to be constructed to a depth of 45 feet or less.

The District Engineer, in his report on this project, recommended the acquisition of 22 acres of land for mitigation of the loss of algal beds associated with the project. This recommendation is not included in the report of the Chief of Engineers. The committee believes that this mitigation feature should be included in the project and has added language in Section 102 specifically adopting the recommendation of the District Engineer.

CROWN BAY CHANNEL—ST. THOMAS HARBOR, VIRGIN ISLANDS

Location.—Crown Bay is a natural embayment west of the existing harbor of Charlotte Amalie on the south coast of the island of St. Thomas.

Authority for Report.—House Public Works Committee resolution adopted October 2, 1962.

Description of Recommended Plan.—Construction and maintenance of a 500-foot wide by 38-foot deep channel extending from open water to Crown Bay and including a 1,200-foot by 1,600-foot by 36-foot deep turning basin.

Physical Data on Project Features.—

Structural

The Channel width is proposed to be 500 feet, and to flare at the northern end of Crown Bay into a turning basin 1,200 feet wide and 1,600 feet long. Dredged material would be deposited behind a bulkhead constructed by the Virgin Islands Port Authority to form a 33.5-acre site for port and commercial development. Annual maintenance volumes of 22,000 cubic yards of dredged material would be deposited on Port Authority property in diked areas with a capacity of 75,000 cubic yards.

Views of States and Non-Federal Agencies.—Comments were requested from the U.S. Departments of Interior, Commerce, Energy, and Transportation, and the U.S. Environmental Protection Agency. Comments were not received from Commerce, Energy, and Transportation. The Department of Interior stated that comments were provided previously on the Draft Environmental Impact Statement and suggested an environmental monitoring program. The EPA raised questions concerning the relationship between the Virgin Islands Port Authority's (VIPA's) proposed plan and the Corps' recommended plan, alternatives to minimize loss of shallow water habitat, and other potential areas for disposal of dredged material. The Chief replied that the VIPA and Corps plans are two independent actions, that permit evaluation for the VIPA project will consider alternatives that would eliminate filling shallow water habitat, and that deepwater disposal for the Corps dredged material will be considered.

Status of Final Environmental Impact Statement.—The Final Environmental Impact Statement was filed with the EPA and appeared in the Federal Register on August 21, 1981.

Project Costs.—
Federal: $3,499,000.
Non-Federal: $3,545,000.

Description of Non-Federal Implementation Costs.—Dredging of berthing areas, relocation of displaced businesses, lands, and a cash contribution due to land enhancement.

Estimated Annual O&M Cost (October 1982 price levels):
Federal: $72,000.
Non-Federal: $18,000.

Benefit-to-Cost Ratio.—1.5.

Remarks.—In view of the expressed concerns regarding turbidity and loss of shallow water habitat, the Committee has included provisions in the authorizing language addressing these potential problems. The Secretary is directed to monitor the turbidity associated with construction, operation and maintenance of the project and establish a program to maintain, to the extent feasible, the turbidity at a level which will not damage adjacent ecosystems. The Secretary is also directed, in selecting a configuration for the disposal area for dredged material, to consider configurations which will minimize, to the extent feasible, the loss of shallow water habitat.

GULFPORT HARBOR, MISS.

Location.—Gulfport Harbor is on Mississippi Sound, an arm of the Gulf of Mexico, about 44 miles west of Pascagoula Harbor, Mississippi, and 78 miles east of New Orleans, Louisiana. Gulfport Harbor and most of the channel is in the State of Mississippi; however, the seaward end of the channel extends into Louisiana.

Authority for Report.—Senate Public Works Committee Resolution adopted September 23, 1965, and Section 304 of the River and Harbor Act approved October 27, 1965.

Description of Recommended Plan.—The Ship channel and basin would be deepened; the anchorage basin would be enlarged; and the channel through Ship Island Pass relocated and a deposition basin for littoral drift provided at the west end of Ship Island. The Chief's report recommended authorization of Phase I studies rather than authorization for construction so that disposal alternatives could be evaluated.

Physical Data on Project Features.—

Structural

The existing ship channel will be enlarged to 38 feet by 400 feet in the gulf entrance and to 36 feet by 300 feet in Mississippi Sound. The channel through Ship Island Pass will be realigned about 1,000 feet westward and a deposition basin 38 feet deep by 300 feet wide and 200 feet long will be provided on the east side of the channel at Ship Island. The anchorage basin will be enlarged and adjusted by extending the southern limits 1,180 feet along the west pier and 2,300 feet along the west side of the channel and decreasing the width from 1,320 feet to 1,120 feet. The deposition basin will simplify future maintenance dredging, and the channel modifications in general will provide direct transportation savings to deep-draft commerce.

Environmental

The feasibility of establishing wetland areas with dredged material will be evaluated during detailed design.

Views of States and Non-Federal Interests.—The Governor of Mississippi supported the project. He also stated that the project had received sufficient study and urged the Office of the Chief of Engineers to eliminate additional study requirements that would result in further delays. The Chief of Engineers responded that actual feasibility cannot be determined until the impact of alternative methods of dredged material disposal are determined, and that until these studies are completed, he cannot recommend construction authorization for this proposed project. He recommended that the selected plan be authorized for the Phase I design memorandum stage of advanced engineering and design to resolve the question of disposal alternatives. Accordingly, environmental issues pertinent to the two alternatives have not been resolved and a final EIS has not been prepared.

Views of Federal and Regional Agencies.—Comments were received from the Departments of Interior, Commerce, and Health, Education and Welfare, and the U.S. Environmental Protection Agency. All these agencies generally opposed the disposal of dredged material in Mississippi Sound until further investigations are made to determine impacts. They generally agreed that transporting the dredged material to the Gulf of Mexico for disposal appears to be the most environmentally sound alternative, and expressed support for the Chief of Engineers' recommendation for authorization of Phase I Advance Engineering and Design studies rather than authorization for construction.

Status of Environmental Impact Statement.—The Revised Draft Environmental Impact Statement (RDEIS) was filed with the Council on Environmental Quality on June 20, 1977. Since the recommendation is for Phase I authorization, rather than for construction, the RDEIS has not been finalized. An addendum to the RDEIS, filed with the Environmental Protection Agency, summarizes the comments and responses to letters received by the Chief of Engineers as a result of Departmental coordination.

Project Costs.—

Federal: $73,678,000.

Non-Federal: $171,000.

Description of Non-Federal Implementation Costs.—Dredging of harbor berths and slips under traditional cost-sharing.

Estimated Annual O&M Cost (October 1982 price levels):

Federal: $752,000.

Non-Federal: $19,000.

Benefit-to-Cost Ratio.—1.1.

Remarks.—The Chief of Engineers recommended further study of this project in order to further evaluate the dredged material disposal alternatives. The two most feasible alternatives are spreading the material in a thin layer in Mississippi Sound and transporting the material to the Gulf of Mexico. The latter method of disposal is environmentally preferable, but would increase the cost of the project by $35,000,000.

The Committee has determined that further study of the disposal alternatives would accomplish no useful purpose. Gulf disposal, while more expensive, is clearly preferable for reasons of environmental quality. Section 102 therefore authorizes construction of the project and directs that dredged material be disposed of in open waters of the Gulf of Mexico in accordance with all provisions of Federal law, including the Ocean Dumping Act.

For purposes of economic evaluation of the project, the benefits associated with Gulf disposal are deemed to be at least equal to the costs. The environmental benefits are not quantifiable in economic terms. Without this provision regarding economic evaluation, the costs of the environmentally preferable alternative are shown in the benefit/cost analysis, but the benefits are not. This tends to discourage implementation of the environmental alternative. Determining the environmental benefits to be at least equal to the costs—in effect determining that these benefits justify the additional cost—removes any bias against the environmental alternative.

CLEVELAND HARBOR, OHIO

The basic report on modifications to Cleveland Harbor was in response to a House Public Works Committee resolution adopted December 2, 1970. The resolution requested a review of the reports on Cleveland Harbor, Ohio, with a view to determining the advisability of further navigational improvements at the existing harbor.

The harbor is located at the mouth of the Cuyahoga River in Cleveland, Ohio. It is one of several deep-draft commercial ports on the south shore of Lake Erie which are part of the 2,400-mile Great Lakes navigation system extending from the Atlantic Ocean to the westerly end of Lake Superior. Land adjacent to the harbor and Cuyahoga River is occupied by major commercial and industrial facilities. The plateaus above the Cuyahoga River valley are in residential and commercial use.

Cleveland is the largest city in Ohio and the 10th largest in the United States. The Cleveland Standard Metropolitan Statistical Area is one of the major manufacturing centers in the Nation, accounting for 1.5 percent of the total United States manufacturing employment. The machinery, metal products, and primary metal industries are the dominant sectors.

Cleveland Harbor accommodates the waterborne movement of bulk and general cargo to and from the city of Cleveland. It serves industries within Cleveland and throughout portions of the State of Ohio and adjacent States. During the period 1969–1974, an average of nearly 22,200,000 net tons of cargo entered the harbor and about 900,000 net tons of cargo were shipped from the harbor, ranking it as one of the major harbors on the Great Lakes. Bulk iron ore, stone, and salt accounted for about 92 percent of the total commerce.

The existing Federal project consists of a breakwater-protected lakefront harbor and improved navigation channels on the Cuyahoga and Old Rivers. The harbor encompasses an area of about 1,300 acres and extends for a distance of about 25,000 feet parallel to the shore. There are two harbor entrances. The main entrance channel is located opposite the mouth of the Cuyahoga River. The secondary entrance is located at the east end of the project. Project depth of the main entrance is 29 feet below low-water datum. Depths are 28 feet in the west basin and 27 feet in the westerly part of the east basin. The channel through the east basin and east entrance is 25 feet deep.

The entrance to the Cuyahoga River is bounded by piers. A navigation channel extends about 5.8 miles upriver, and its authorized depth is 27 feet from the lakeward end of the piers to a point upstream of Old River. The remainder of the channel has an authorized depth of 23 feet. Navigation is also accommodated by a 1-mile long channel up Old River. That channel has an authorized depth of 27 feet, but has been deepened and maintained to only approximately 23 feet.

The existing harbor dimensions restrict the movement of major bulk commodities to vessels which are smaller and less efficient than the new generation of bulk carriers. Certain features of the existing project also present hazards to navigation, particularly during storm conditions. Consequently, the potential economic advantages of the harbor are not being fully realized. There is a shortage of berthing facilities for small recreation craft, and their owners are experiencing navigational hazards because of the incompatibility of their craft with large commercial vessels.

Bulk carriers use the main entrance to enter and leave the harbor during calm weather. The present project depth is sufficient for the range of vessel sizes up to and including the "Seaway" size, which is 730 feet in length and 75 feet in beam. The present depth is judged inadequate, however, for operation of the new bulk vessels, 1,000 feet in length and 105 feet in beam. Also, the width of the main entrance between the ends of the west and east breakwater structures is inadequate for even "Seaway" size vessels. Furthermore, portions of the breakwaters are physical obstacles and represent hazards to vessels, particularly during storm and seiche conditions. The east entrance is the preferred entrance for general cargo vessels and bulk carriers during storm conditions. However, its use is controlled by a depth of 25 feet, as compared to the system depth of 27 feet. Consequently, the report cites the need to improve one or both entrances to permit safe navigation during all weather conditions.

The plan of improvement developed by the District Engineer and discussed in his June 1976 report consists of the following general navigation and recreation features:

(a) Extension of the lake approach and entrance channel at the main entrance, and deepening those areas to 32 feet;

(b) Incremental removal of 500 feet of the existing west breakwater spur and 400 feet of the existing east breakwater spur at the main entrance to facilitate turning movements;

(c) Construction of a 1,200-foot rubblemound breakwater extension at the east end of the east breakwater;

(d) Deepening the approach channel and the 1,000-foot-wide entrance channel at the east entrance to 32 feet;

(e) Deepening the existing 500-foot-wide east basin channel to 28 feet;

(f) Construction of a 30-acre diked disposal facility along the Burke Lakefront Airport for containment of all dredged materials;

(g) Construction of a pedestrian handrail along the top of the existing west breakwater, extending from the shore to the lighthouse at the end of the west arrowhead breakwater;

(h) Construction of a pedestrian bridge spanning the 200-foot opening in the shore arm of the existing west breakwater; and

(i) Upgrading an existing public parking area located east of the Edgewater Marina.

The last three items of the plan are for the purpose of creating additional recreational fishing opportunities in the harbor area.

An important feature of the overall plan of improvement, but not part of the general navigation facilities, is the lakefront transshipment facilities, including terminal docks, berthing, unloading and storage facilities to handle iron ore destined for inland rail delivery, and barge or conveyor transshipment to steel plants along the Cuyahoga River navigation channel. Local interests would be responsible for development of the lakefront transshipment facilities.

Based on 1975 price levels, the District Engineer estimated the total first cost of the general naviation and recreational facilities proposed in the June 1976 report to be $24,620,000, ($36,000,000 at October 1982 price levels), of which $23,970,000 would be Federal, including $79,500 for aids to navigation, and $650,000 would be non-Federal. Annual charges, based on an interest rate of 6⅛ percent and a 50-year period for economic analysis, would be $1,770,000. Annual benefits were evaluated in two ways. Based on the assumption that the required lakefront transshipment facilities plan would be implemented, the total average annual benefits were estimated at $16,590,000, and the benefit-cost ratio was 9.4. Based on the assumptions that lakefront transshipment upriver would not be implemented and that future traffic would be handled through existing transshipment facilities, the total average annual benefits were estimated at $4,390,000, and the benefit-cost ratio was 2.5.

The District Engineer completed the feasibility report in June 1976, and from August 1976 to March 1977 conducted supplemental investigations. The supplemental studies indicated that there is strong local support for improvements to Cleveland Harbor. The supplemental studies also indicated that the proposed channel and breakwater modifications at the main entrance are not engineeringly satisfactory and that the proposed east entrance modification may not provide the degree of storm refuge originally thought possible. The District Engineer concluded from the supplemental studies that improvement of Cleveland Harbor is economically justified, and strongly supported by local interests. However, a model study is necessary to determine the final harbor configuration.

In Section 175 of the Water Resources Development Act of 1976, Congress conditionally authorized the Phase I design memorandum stage of advanced engineering and design based upon the findings of the June 1976 feasibility report of the District Engineer. That Act became effective prior to completion of the District Engineer's supplemental studies. In view of the findings of the supplemental studies and the Congressional action with regard to Cleveland Harbor improvements, the District Engineer revised his recommendation from one proposing construction authorization to one proposing that Phase I studies be undertaken.

In accordance with Section 175 of the Water Resources Development Act of 1976, the Chief of Engineers, on January 30, 1978, recommended that the Phase I stage of advanced engineering and design of the project be undertaken. This constituted the submittal to the Secretary and notification to Congress of the approval of the Chief of Engineers under Section 175.

The plan tentatively developed by the District Engineer as part of the Phase I study consists of an "all-weather" entrance into the Lakefront Harbor for 1,000-foot vessels at the existing east entrance. The plan would also provide deeper channel depths which would allow Class V through Class X vessels to enter Cleveland Harbor loaded to the maximum Great Lakes System's draft of 25.5 feet.

Components of Plan 1 include a fan-shaped entrance channel at the existing east entrance and an interior channel through the east basin to the west basin. The fan-shaped entrance channel was sized to allow 1,000-foot vessels, entering Cleveland Harbor from the west, sufficient maneuvering room to turn into the east entrance. After making the turn, the width of the entrance channel narrows to 900 feet. The 900-foot width is required since vessels would still be under the influence of wave action during the design "all-weather" conditions, especially when the waves were from the north or northeast. Once the vessels are completely into the protected harbor and are no longer subject to wave attack, the width of the channel narrows to 500 feet, sufficient for two-way traffic through the remainder of the east basin.

Depths of the entrance channel and interior channel would be 32 feet and 28 feet below low water datum (LWD), respectively. The 32-foot depth of the entrance channel is required in order to provide sufficient depth of water for vessels experiencing roll under the design "all-weather" conditions (i.e., 4 degree roll for a Class X vessel and 6-degree roll for Class V through Class VII vessels for an 8-foot wave). Once the vessels are completely into the protected harbor and are no longer under wave attack (and thus do not experience any roll), the depth of the channel decreases to 28 feet, except in the vicinity of the west (main) entrance where the depth is 32 feet where vessels would again be under wave attack from waves entering the harbor through the existing arrowhead breakwaters for the design "all-weather" conditions. Once the vessels are into the protected west basin, the existing 28-foot depth is sufficient for vessel operations. The principal construction item for Plan 1 would be approximately 1.3 million cubic yards of assumed polluted dredged material. The estimated cost of this plan is $6,000,000.

An alternative plan considered by the Corps of Engineers and favored by local interests, consists of an "all-weather" entrance into the Lakefront Harbor for 1,000-foot vessels at the existing west (main) entrance. The plan would also provide deeper channel depths which would allow Class V through Class X vessels to enter Cleveland Harbor loaded to the system's maximum draft of 25.5 feet.

Components of this Plan include an extended breakwater protected entrance channel and removal of portions of the existing east and west spur breakwaters. The existing west entrance channel would be extended lakeward about 1,000 feet in order to provide adequate stopping distance for 1,000-foot vessels entering the harbor at 6 knots. In addition, to facilitate turning into either the east or west basin, the channel would be widened as it enters the Lakefront Harbor by removing 300 feet of the west spur breakwater and 200 feet of the east spur breakwater. Stone rubble from these breakwater removals would be used to create a fishery habitat development area immediately lakeward of the west breakwater.

The new entrance channel would be deepened to 32 feet below LWD, sufficient to accommodate vessel roll under the design "all-weather" conditions. In addition, since wave action would still enter the Lakefront Harbor, the area of the Lakefront Harbor in the vicinity of the entrance channel would also be deepened to 30 feet. A portion of the east basin would be deepened to 28 feet to accommodate vessels entering the east basin and then backing into the west basin.

The extended entrance channel would be protected by a pair of 1,000-foot-long breakwater extensions. These breakwaters would provide protection from wave action as 1,000-foot vessels enter the harbor and slow down prior to turning into either the east or west basin and would prevent an increase in wave action in the Lakefront Harbor as a result of the spur breakwater removals. Both the new breakwater extensions and the new ends of the spur breakwaters would be suitably provided with new aids to navigation.

This plan would provide more direct access to the harbor facilities and save 1 to 2 hours in vessel transit time in the harbor traveling from the east entrance along the 5 mile length of the area of protected water. The estimated cost of this plan is $20,000,000 and the benefit to cost ratio is 10.7.

The most comprehensive development of Cleveland Harbor would consist of modifications of both the east and main (west) entrances. The annual benefits of these improvements exceed their combined annual costs by a large amount and the total benefits to navigation would be substantial.

The Secretary is expected in connection with the report and recommendations made pursuant to Section 103, to give further consideration to improvement of both entrances.

The Committee is continuing its review of the critical navigation needs at Cleveland Harbor with a view toward further addressing this matter when the bill is considered on the floor of the House of Representatives.

LORAIN HARBOR, OHIO

Location.—Lorain Harbor, Ohio, is located on the south shore of Lake Erie, at the mouth of the Black River, approximately 25 miles west of Cleveland, Ohio, and 90 miles east of Toledo, Ohio. The harbor includes a breakwater-protected Outer Harbor and improved navigation channels on the Black River.

Authority for Report.—House Public Works Committee resolution adopted September 23, 1976.

Description of Recommended Plan.—The Draft Final Feasibility Report of the Buffalo District Engineer on Lorain Harbor is divided into three volumes investigating three aspects of water resources needs at Lorain Harbor—commercial navigation needs (Volume I), recreational navigation needs (Volume II), and erosion and sedimentation problems (Volume III). The Bill authorizes implementation of the recommendations of the Draft Report with respect to commercial navigation, contained in Volume I.

The Draft Report analyzes twenty-one alternative commercial navigation plans, including the No-Action Plan. Based on that analysis, it was determined that Alternative Plan 18, which would facilitate direct delivery of iron ore up the Black River to the United States Steel plant in 767-foot vessels, would be economically justified and environmentally viable. It is also the only plan analyzed which would accommodate the most probable future fleet mix at Lorain Harbor. Accordingly, Plan 18 was selected as the recommended plan.

Physical Data on Project Features.—The recommended plan will require modifications to the Outer Breakwater and East Breakwater to provide a wider entrance channel for the 1,000-foot vessles that service Republic Steel's lakefront transshipment facility and Amship. Also included in the Outer Harbor improvements will be the deepening of the harbor entrance and the Outer Harbor. The disposal of dredged material from these areas will require construction of a berm in the existing diked disposal area to accommodate the additional material.

Three upriver bend cuts (designated Cuts B, C, and D) will be required in order to allow the 767-foot vessels involved in upriver trade to draft 1 foot deeper, thereby eliminating these areas as depth constraints at Lorain Harbor. Cut B will be on the west bank immediately upstream of the N&W Railroad Bridge and will provide approximately 150 feet of additional width at its widest point. Cut C will be on the east bank just downstream of the 21st Street Bridge and will provide up to 200 feet of additional channel width. Cut D, located on the west bank just upstream of the 21st Street Bridge will widen the channel by up to 150 feet.

Project Costs (estimated at October 1982 price levels):

Federal: $32,000,000.

Non-Federal: $560,000.

Description of Non-Federal Implementation Costs: Providing lands, easements, rights-of-way, berthing areas, and local access channels. Presently, only one beneficiary of the modification to the existing Black River channel has been identified; however, a reasonable prospect exists for later multile use by other users. Under existing laws and regulations, this situation requires that non-Federal interests contribute annually, until such time as multiple use of the general navigation feature actually occurs, 50 percent of the annual charges for interest and authorization of the Federal first cost of the excavation of Bank Cuts B, C and D.

Benefit/Cost Ratio: 2.1

GRAND HAVEN HARBOR, MICH.

Location.—Grand Haven Harbor, Michigan, is located on the east shore of Lake Michigan in southwestern Michigan, at Grand Haven in Ottawa County. The harbor is the natural outlet of the Grand River.

Authority for Report.—House Public Works Committee Resolution adopted March 1, 1950.

Description of Recommended Plan.—Dredge the harbor entrance channel and harbor river channel to greater depths and provide a new and larger turning basin.

Physical Data on Project Features.—

Structural

The recommended plan includes the following: Dredge the existing harbor channel to a depth of 27 feet, up to the Grand Trunk Western Railroad bridge, and dredge the entrance channel to a depth of 29 feet to deep water in Lake Michigan; provide a turning basin opposite the area known as "the Sag", 1,200 feet along the channel, 300 feet along the shore, 800 feet at right angles to the channel and 18 feet deep; abandon the existing turning basin located just downstream of the Grand Trunk Western Railroad bridge. The proposed modifications would allow use of the Grand Haven Harbor by longer, self-unloading type vessels, loaded to greater drafts with related increased capacities per trip. This would result in transportation savings on bulk cargo commerce of approximately $4.60 per ton.

Views of States and Non-Federal Interests.—The State of Michigan's Department of Natural Resources concurred with the report and stated its willingness to provide items of local cooperation.

The City of Grand Haven, Michigan, Harbor Board has expressed support for the proposed project. The City of Ferrysburg, Michigan, concurred with the study recommendation. The Lake Carriers' Association, Cleveland, Ohio, favors the improvement of the harbor.

Views of Federal and Regional Agencies.—The Department of the Interior had no objections to the report. The U.S. Environmental Protection Agency had no major objections to the proposed project modifications, but felt additional information would be required in the Environmental Impact Statement concerning the quality of bottom sediments in the harbor, methods of dredged material disposal, and effects on nearby sensitive environmental areas. The Department of Health, Education, and Welfare requested that disposal sites be looked at in terms of their relationship to mosquito production and that methods of pretreating dredged material be evaluated. EPA and HEW comments have been addressed in the final EIS.

Status of Final Environmental Impact Statement (EIS).—The Final EIS was filed with EPA on July 17, 1981.

Project Costs.—

Federal: $12,879,000.

Non-Federal: $3,635,000.

Description of Non-Federal Implementation Costs.—Relocating an existing cable crossing, providing lands, easements, and rights-of-way and dikes for disposal facility, revetments, and dredging and berthing areas.

Estimated Annual O&M Cost (October 1982 price levels):

Federal: $219,500.

Non-Federal: $6,500.

Benefit/Cost Ratio.—1.4.

MONROE HARBOR, MICH.

Location.—Monroe Harbor lies within the City of Monroe on the River Raisin. It is approximately 17 miles north of Toledo, Ohio, and 36 miles south of Detroit, Michigan. The 1980 population in the City of Monroe, Michigan, was 23,500 persons.

Authority for Report.—Senate Public Works Committee Resolution adopted May 28, 1963.

Description of Recommended Plan.—The recommended plan consists of: deepening the River Raisin portion of the channel; deepening and widening the Lake Erie portion of the channel; constructing a new turning basin; and constructing a confined disposal facility.

Physical Data or Project Features.—

Structural

a. Channels: The recommended plan calls for: deepening the existing channel in the River Raisin from 21 feet to 27 feet, maintaining the channel width in this reach at 200 feet, for a total distance of approximately 6,000 feet from the existing turning basin to the mouth; deepening the existing entrance channel from 21 feet to 28 feet, widening this channel from 200 feet to 500 feet, for a total distance of approximately 47,000 feet from the mouth of the river to the Maumee Bay Entrance Channel; dredging a new turning basin 24 feet deep, with a diameter of at least 1,600 feet, approximately 6,500 feet downstream from the existing turning basin; and constructing a 190-acre confined disposal area in Plum Creek Bay.

b. Lands, easements, rights-of-way and relocations: Acquisition of land is not required for this project, because the land is controlled by the State of Michigan, the local sponsor.

c. Performance and Outputs: Transportation savings will be realized by the increased tonnages of western low sulfur coal received by Detroit Edison for its Monroe Power Plant and the increased tonnage of iron ore pellets received by North Star Steel Company. Also, increasing the width of the lake channel to 500 feet will allow for the safe and efficient operation of two-way traffic of 105-foot-wide vessels.

Views of States and Non-Federal Interests.—The State of Michigan, Department of Transportation, supported the proposed modifications to Monroe Harbor. The Governor of the State of Michigan stated support for the project. The Monroe County Planning Commission and the City of Monroe, both supported the project.

Views of Federal and Regional Agencies.—Letters were received from the United States Coast Guard, Department of Commerce and Department of Agriculture, all having no comments to offer. However, the letters from EPA and from the Department of the Interior expressed concern for the loss of Lake Erie shallow water habitat, the effects of power plant thermal discharge and secondary development and the potential for successful wetland creation. However, both agencies agree that these concerns can be addressed in greater detail during post-authorization studies.

Status of Final Environmental Impact Statement (EIS): The final EIS was filed with EPA and distributed for public review on March 13, 1981, by the Office of the Chief of Engineers.

Projects Costs.—

Federal: $145,280,000.

Non-Federal: $0.

Estimated Annual O&M Cost (October 1982 price levels):

Federal: $1,323,000.

Non-Federal: $0.

Benefit/Cost Ratio: 3.3.

Remarks.—The existing harbor can accommodate vessels up to 700 feet long with a draft of 19.5 feet. The principal commodities entering or leaving the harbor are coal, iron ore, and cement. Modern ships carrying these commodities on the Great Lakes are

1,000 feet long with a draft of 25.5 feet. The newer vessels can operate more efficiently than the older fleet, and they can carry more cargo. This means a substantial decrease in the cost per ton for those harbors that can accommodate the larger vessels. Significant savings in shipping costs can be realized at Monroe if the harbor and river channels are enlarged to permit access to these ships.

The report of the District Engineer, Detroit District, recommended the formation of a 700-acre marsh in Plum Creek Bay as part of dredged material disposal. Although this is the environmentally preferred alternative, it was not included in the report of the Chief of Engineers. However, for reasons of improved environmental quality, the Committee has included the District Engineer's recommendation with regard to creation of the marsh.

BRAZOS ISLAND HARBOR, TEX., BROWNSVILLE CHANNEL

Location: The Port of Brownsville serves the southernmost tip of Texas and lies about 5 miles from the Mexican border.

Authority for Report: House Public Works Committee resolution adopted May 5, 1966.

Description of Recommended Plan: Existing channels would be deepened to 42 feet and widened; a turning basin would be enlarged; and a north jetty park, jetty walkways and comfort stations would be constructed.

Physical Data on Project Features:

Structural

Entrance channel with a 44-foot depth and a 400-foot bottom width.

Main Channel with a 42-foot depth and a 300-foot bottom width.

Turning Basin Extension with a 42-foot depth at widths varying from 325 feet to 400 feet.

Removal of wharves necessary to widen Turning Point to 1,200 feet at a 36-foot depth.

Leveed disposal areas.

Relocation of three navigation lights and six ranges.

53.5 acres of additional right-of-way for channel enlargement.

240 acres of additional disposal area.

Recreation

North Jetty Park would include a 100-foot lighted fishing pier, a fish cleaning station, four picnic tables, barbecue grills, jetty walkways, comfort stations, and other facilities.

Views of States and Non-Federal Interests: The State of Texas concurred with the findings of the report. The Brownsville Navigation District and the Port of Brownsville both support the project and are willing to provide all the local cooperation requirements.

Views of Federal and Regional Agencies: The EPA commented that the Draft Environmental Impact Statement adequately responded to its comments, but noted that required ocean dumping site studies had not been conducted. The Chief of Engineers responded that all testing and site designation studies will be conducted after authorization and prior to construction. The Department of the Interior indicated its desire for additional mitigation measures to be considered for losses to wetlands. The Chief of Engineers responded by having additional detailed biological field studies conducted. The studies concluded that no appreciable losses to wetlands would occur with implementation of the project and no mitigation land would be required. However, the possible need for additional mitigation measures will be coordinated with Federal and State fish and wildlife agencies during post-authorization planning.

Status of Environmental Impact Statement (EIS): The final EIS was filed with EPA in March 1981.

Project Costs:

Federal: $27,075,000.

Non-Federal: $1,244,000

Description of Non-Federal Implementation Costs: Traditional Financing/Cost-Sharing—Dredging of berths; relocations of wharves in turning basin, levees and spillways; purchase of land and right-of-way; and 50 percent of the cost of recreational and basic public facilities.

Estimated Annual O&M Cost (October 1982 price levels):

Federal: $291,000.

Non-Federal: $137,000.

Benefit/Cost Ratio: 1.7

Remarks: The authorization included in Section 102 directs the Secretary, in consultation with appropriate Federal, State and local agencies, to study the need for additional measures to mitigate losses of estuarine habitat and productivity associated with the project. The Secretary is authorized to undertake any measures which are determined to be necessary and appropriate to mitigate such losses.

DULUTH-SUPERIOR HARBOR, MINN. AND WIS.

Location.—Duluth-Superior Harbor is located at the southwestern tip of Lake Superior and lies within the cities of Duluth, Minnesota, and Superior, Wisconsin. The 1980 population for the two cities was 92,811 and 29,571 persons, respectively.

Authority for Report.—House Public Works Committee Resolution adopted December 11, 1969.

Description of Recommended Plan.—The recommended plan provides for: deepening the western portions of the North and South Channels from mile 4.0, deepening the entire Upper Channel, deepening the Minnesota Channel to 27 feet to mile 7.3; widening the bend at Arrowhead Bascule Bridge to 600 feet; and constructing an upland confined disposal facility.

Physical Data on Project Features.—

Structural

(a) Channels: The recommended plan provides for: the deepening of the western portion of the North Channel from 21 feet to 27 feet; deepening the western portion of the South Channel from mile 4.0 from 23 feet to 27 feet; deepening the Upper Channel mile 4.0 from 23 feet to 27 feet; deepening the Upper Channel from 23 feet to 27 feet; deepening the Minnesota Channel to mile 7.3 from 23 feet to 27 feet; widening the Cross Channel turning basin from a mini-

minimum of 1,200 feet to a minimum of 1,500; widening the turn at the Arrowhead Bascule Bridge to 600 feet; and constructing a 130-acre upland confined disposal facility in the Superior Municipal Forest.

(b) Lands, easements, rights-of-way and relocations: Acquisition of land is not required for this project, because the land is controlled by the city of Superior, one of the local sponsors.

Environmental Features

Mitigation on project lands: Mitigation/compensation for unavoidable adverse wildlife impacts associated with the construction and operation of the disposal facility is recommended to take place on the confined disposal facility and is a specific item of local cooperation. Actions to be taken include: seeding and vegetating the containment dikes; vegetating the cell containing material not suitable for reuse and vegetating other portions of the facility as required.

Views of States and Non-Federal Interests.—The State of Minnesota, Office of the Governor, supported the proposed modifications to Duluth-Superior Harbor. The State of Minnesota, Department of Transportation and Department of Natural Resources (MDNR) supported the proposed modifications but expressed concerns about future loss of shallow water habitat. The State of Wisconsin, Department of Natural Resources, expressed conceptual acceptance of the proposed modifications. The Minnesota Pollution Control Agency expressed concern over the potential adverse environmental effects and expressed support for the Downstream Development Plan. These concerns have been addressed in the final feasibility report.

Views of Federal and Regional Agencies.—Letters on the Draft Feasibility Report were received from the Federal Energy Regulatory Commission and the Federal Highway Administration with no specific comments. The Department of the Interior expressed concerns that mitigation/compensation was not discussed (it is addressed in Final Report) and that future developments along the 27-foot channel could cause the loss of additional shallow water habitat. The Department of Commerce—NOAA expressed support for the Downstream Development Plan. The United States Coast Guard recommends relocation of navigation buoys in conjunction with proposed improvements. The Environmental Protection Agency recommended that a mitigation plan be developed. These concerns also have been addressed in the Final Feasibility Report.

Status of Final Environmental Impact Statement.—The Final Environmental Impact Statement was filed with the Environmental Protection Agency on July 15, 1983.

Project Costs.—

Federal: $7,215,000.

Non-Federal: 3,551,000.

Description of Non-Federal Implementation Costs.—$3,551,000 reflects 100 percent of the first cost of $2,881,000 attributed to the construction of the confined disposal facility, and $670,000 interest during construction.

Estimated Annual O&M Cost (October 1982 price levels):

Federal: $10,000.

Non-Federal: $0.

Benefit/Cost Ratio.—1.9.

Remarks.—The channels of the Duluth-Superior Harbor have been deepened to 27 feet with the exception of the westerly portions of the North and South Channel, the Upper Channel and the Minnesota Channel, all of which vary from 21 to 23-foot depths. The present minimum width of the Cross Channel Turning Basin is 1,200 feet. Due to the existing conditions, the present fleet servicing the harbor operates inefficiently. Vessels utilizing these upper navigation channels must either light load and top-off on the 27-foot channel or sail at less than capacity, while the larger vessels using the Cross Channel are confined by the narrow turning basin. Deepening the channels in the upper harbor and widening the Cross Channel Turning Basin will reduce time delays and allow vessels to operate at full Great Lakes-St. Lawrence Seaway project depth, which will produce significant savings in shipping costs at the Duluth-Superior Harbor.

The Secretary is directed to study, in consultation with appropriate Federal, State and local agencies, the need for measures to mitigate losses of fish and wildlife habitat and productivity. A report on the results of this study, including recommendations for modifications to project which the Secretary determines to be necessary and appropriate to mitigate such losses, is to be transmitted within one year after date of enactment to the House Committee on Public Works and Transportation and the Senate Committee on Environment and Public Works. The authorization includes modifications recommended in this report as well as any modifications recommended in the report required by Section 103. Except for funds from the Environmental Protection and Mitigation Fund, no appropriations may be made for acquisition of land for, or actual construction of, the project until approved by resolutions of the two Committees.

SAN FRANCISCO HARBOR, CALIF., FISHERMAN'S WHARF AREA

Location.—Fisherman's Wharf Area is located on the San Francisco Bay on the northern waterfront of the City and County of San Francisco, near the Golden Gate.

Authority for Report.—House Public Works Committee resolution adopted May 5, 1966.

Description of Recommended Plan.—The proposed plan consists of a 700-foot concrete baffled wall extending in a north-west direction from the end of the Hyde Street Pier; then a sheet pile wall extending 500 feet in a north-east direction; and a 700-foot sheet pile wall extending to the east to a point north of the end of Pier 45. The last 370 feet of Pier 45 would have a concrete baffled wall also.

Physical Data on Project Features.—

Structural

Combination of sheet pile and baffled wall breakwater to protect Fisherman's Wharf Area from damaging wind-waves and surge prevalent in the area. Protected area is 52,200 sq. ft. providing approximately 250 additional berths.

Recreation

A walkway is to be constructed on top of the breakwater to provide access to historic fleet, sightseeing and pier fishing.

Views of States and Non-Federal Interests.—Local interests support the recommended project.

Views of Federal and Regional Agencies.—No objections were voiced. Local agencies support the project.

Status of Environmental Impact Statement (EIS).—The Final EIS was filed with EPA on February 27, 1981.

Project Costs.—

Federal: $14,370,000.

Non-Federal: $2,520,000.

Description of Non-Federal Implementation Cost.—Under traditional policies, non-Federal cost-sharing is required for recreational features.

Estimated Annual O&M Cost (October 1982 price levels):

Federal: $81,000.

Non-Federal: $47,000.

Benefit/Cost Ratio.—1.2.

Remarks.—Fisherman's Wharf area includes a network of piers, wharves and berths unprotected from wave and surge action entering through the Golden Gate. Both the commercial fishing vessels and the historic ships suffer continual damage due to the unprotected berth area.

Historic ships moored in the project area will be relocated during the construction period. The Committee considers this to be a project construction cost and has therefore provided that the relocation will be a Federal responsibility.

OAKLAND OUTER HARBOR, CALIF.

Location.—Oakland Outer Harbor is a segment of Oakland Harbor located on the eastern shore of central San Francisco Bay immediately south of the San Francisco-Oakland Bay Bridge.

Authority for Report.—House Public Works Committee resolution adopted June 14, 1972.

Description of Recommended Plan.—Existing channels would be deepened and widened; the existing turning basin would be relocated and widened.

Physical data on Project Features.—

Structural

Entrance Channel: 1,100 feet wide, 42 feet deep.

Outer Harbor Dog Leg: 800 feet wide, 42 feet deep.

Turning Basin: 1,800 feet in diameter, 42 feet deep.

Overall length of the channels is 3.5 miles.

Views of States and Non-Federal Interests.—State of California recommended that a new landside transportation study of Oakland Harbor, similar to the San Pedro Bay Ports study, be undertaken. The Chief of Engineers responded that local interests were conducting such a study. The Port of Oakland has expressed continued support.

Views of Federal and Regional Agencies: The U.S. Department of the Interior expressed opposition to the project based largely on what it views as the report's inadequate consideration of dredged material disposal. The Chief of Engineers responded that most disposal issues had already been addressed while some concerns would be investigated further during future planning and design.

Status of Environmental Impact Statement (EIS).—The Final EIS was filed with EPA on February 27, 1981.

Project Costs.—

Federal: $36,040,000.

Non-Federal: $5,160,000.

Description of Non-Federal Implementation Costs.—Under traditional policies, non-Federal interests would provide dredging of berths and alterations to Bay Area Rapid Transit (BART) tube.

Estimated Annual O&M Cost (October 1982 price levels):

Federal: $370,000.

Non-Federal: $0.

Benefit/Cost Ratio.—2.6.

Remarks.—In view of the concerns expressed with regard to the disposal of dredged material in connection with the project, the Committee has added a provision directing the Secretary to study alternative dredged material disposal plans. The study is to include plans which involve formation of marsh areas. The project authorization includes disposal and monitoring of the effects of disposal, together with marsh formation, as the Secretary determines are necessary and appropriate.

RICHMOND HARBOR, CALIF.

Location.—The area is a segment of the eastern side of San Francisco Bay in Contra Costa County adjacent to the city of Richmond.

Authority for Report.—House Public Works Committee resolution adopted October 19, 1967 (concerning San Francisco Bay; report is in partial response), and July 10, 1968 (concerning Richmond Harbor; report is in full response).

Description of Recommended Plan.—Widen the existing channels; enlarge existing turning basin; construct of a new turning basin; deepen all channels and basins to 41 feet.

Physical Data on Project Features.—

Structural

Connecting (Southampton) Channel: 600 feet wide, 41 feet deep.

Long Wharf Channel: 600 feet wide, 41 feet deep.

Entrance Channel: 600 feet wide, 41 feet deep.

Potrero Reach Channel: 600 feet wide, 41 feet deep.

Inner Harbor Channel: 850 feet wide, 41 feet deep.

Turning Area between the Connecting and Long Wharf Channels: 2,000 feet wide, 2,200 feet long, 41 feet deep.

Turning basin at the Old Ford Channel: 1,900 feet long, 300–1,700 feet wide, 1,425 feet in diameter, 41 feet deep.

Dredged Material Disposal: Dredged material is unpolluted and will be placed in the existing 2,000-foot diameter open-water disposal site located one-third of a mile south of Alcatraz Island.

Improved channels will accommodate safe navigation by modern containerships (with a 110-foot beam, and a 35-foot draft) and other vessels without tidal delays and with reduced tug assistance.

Views of States and Non-Federal Interests.—The City of Richmond expressed its intent to provide the traditional items of local cooperation. In response to the review of the proposed Chief of Engineer's Report, the City of Richmond expressed appreciation for selection of the recommended plan, and the State of California requested continued coordination with the San Francisco Bay Regional Water Quality Control Board. This coordination will be continued during future planning and design.

Views of Federal and Regional Agencies.—In response to the review of the proposed Chief of Engineers' Report, the U.S. Department of the Interior, the U.S. Environmental Protection Agency, and the U.S. Department of Transportation, Coast Guard, offered no significant comments.

Status of Final Environmental Impact Statement (EIS).—The Final EIS was filed with EPA on May 21, 1982.

Project Costs.—

Federal: $48,443,000.

Non-Federal: 7,458,000.

Description of Non-Federal Implementation Costs.—Under traditional policies, non-Federal interests would provide construction dredging of berthing areas.

Estimated Annual O&M Cost (October 1982 price levels):

Federal: $336,000.

Non-Federal: $29,000.

Benefit/Cost Ratio.—1.5.

Remarks.—Growth of foreign and coastwise shipments and the introduction of larger vessels in the world fleet have rendered the existing 35-foot-deep channels and turning basin at Richmond Harbor inadequate and inefficient for modern transportation needs. Maneuvering of vessels is restricted and the channels are too shallow for larger containerships and other vessels which must await high tide to navigate. Because of long delays and the hazard of grounding, efficient cargo movement is impaired. Unless adequate channels are provided, longer delays will be experienced and increased congestion will result from traffic limited to vessels small enough to operate in existing channels.

SACRAMENTO DEEP WATER SHIP CHANNEL, CALIF.

Location.—The area is located in central California and extends from Avon in Suisun Bay to the Port of Sacramento in Yolo County.

Authority for Report.—House Public Works Committee resolutions adopted July 10, 1968, and December 11, 1969.

Description of Recommended Plan.—Existing channel would be deepened from the existing 30 feet to 35 feet below mean lower low water and widened as necessary to maintain navigation safety. High-quality, well-maintained salinity monitoring stations would be installed to measure salinity levels. The recommended plan includes authority to construct a submerged sill or alternative features if required to control salinity intrusion. It also includes the establishment of 45 acres of wetland habitat and 156 acres of upland habitat as mitigative measures and the development of 30 acres of recreation facilities.

Physical Data on Project Features.—

Structural

Channels—46.5 miles; Depth—35 feet below mean lower low water; Width—250 to 400 feet; Dredging quantity—30.3 million cubic yards; Disposal areas—3,500 acres. Projection of project induced tonnage is 4,100,000 by 1987; project induced recreation is estimated at an ultimate of 180,000 user days annually.

Views of States and Non-Federal Interests.—The State of California Resources Agency expressed concern about additional salinity intrusion that may be associated with channel deepening. The Chief of Engineers indicated that additional studies to address this concern will be conducted during future planning studies.

Views of Federal and Regional Agencies.—The U.S. Department of the Interior, the U.S. Environmental Protection Agency, the Central Delta Water Agency and the State of California all expressed concern about the salinity intrusion aspects of channel deepening.

Project Costs.—

Federal: $77,000,000.

Non-Federal: $18,200,000.

Description of Non-Federal Implementation Costs.—Under traditional policies, non-Federal interests will provide lands, easements, rights-of-way, relocations, dredged material retention dikes, a portion of the cost of recreation facilities, and a portion of the cost of fish and wildlife mitigation features.

Estimated Annual O&M Cost (October 1982 price levels):

Federal: $0.

Non-Federal $96,000.

Benefit/Cost Ratio.—2.3.

Remarks.—Problems associated with waterborne transportation result from a waterway which is inadequate to efficiently accommodate the vessels currently using the channel, thus causing transportation inefficiencies and unsafe conditions. Major recreation problems result from inadequate public access and a lack of facilties for public recreation.

The recommended plan includes the establishment of 45 acres of wetland habitat to replace 45 acres lost due to the project; and 156 acres of upland habitat to mitigate for partial losses on 3,600 acres of upland habitat. It also includes further studies of the possibility of salinity intrusion and the construction of an underwater sill or other appropriate measures if necessary to prevent any such intrusion.

HILO HARBOR, HAWAII

Location.—The area includes the city of Hilo on the east coast of the Island of Hawaii.

Authority for Report.—Water Resources Development Act of 1976, Section 144.

Description of Recommended Plan.—The recommended plan provides access for larger and deeper draft vessels. It includes a nonstructural solution to reduce surge-related damages and delays.

The plan provides for deepening the turning basin and entrance channel to 38 and 39 feet, respectively.

Physical Data on Project Features.—

Structural

Deepen Hilo Harbor to 38 and 39 feet from the existing 35 feet to accommodate deeper draft vessels.

Nonstructural

Construct a submersible mooring buoy in Hilo Harbor to reduce surge-related delays and damages.

Project Costs.—

Federal: $4,086,000.

Non-Federal: $311,000.

Description of Non-Federal Implementation Costs.—Under traditional policies non-Federal interests would provide dredging of the berthing area.

Estimated Annual O&M Cost (October 1982 price levels):

Federal: $0.

Non-Federal: $3,000.

Benefit/Cost Ratio.—2.0.

Remarks.—The authorized project at Hilo Harbor, completed in 1930, is 35 feet deep. Larger vessels using the harbor require a 40-foot depth for maximum efficiency and best national economic development benefit. Delays and damages caused by surge have been persistent in Hilo Harbor since construction of the original project.

The project includes such modifications as may be recommended by the Secretary under section 103. That section provides that, for any project for which a final report of the Chief of Engineers is not completed before the date of enactment, the Secretary shall submit a copy of any required final environmental impact statement and any recommendations of the Secretary with respect to the project, to the House Committee on Public Works and Transportation and the Senate Committee on Environment and Public Works within one year.

Except for funds from the environmental protection and mitigation fund, no appropriations may be made for acquisition of land for or actual construction of, the project until approved by resolutions of the two Committees.

BLAIR AND SITCUM WATERWAYS, TACOMA HARBOR, WASH.

Location.—Tacoma Harbor, Pierce County, is located in southern Puget Sound in the northwest corner of Washington.

Authority for Report.—Section 209 of the Flood Control Act of 1962.

Description of Recommended Plan.—Recommended plan provides for (a) modifying the existing Federal project for Blair Waterway from 35 and 30 feet deep to 45 and 41 feet deep, including the replacement of the East 11th Street bridge, and (b) Federal maintenance of the locally constructed Sitcum Waterway to depths of 40 and 35 feet.

Blair Waterway, which is 2.6 miles long, would be deepened and the Federal Government would maintain Sitcum Waterway which is 0.75 miles long. The East 11th Street bascule bridge across Blair Waterway would be replaced with a movable span bridge that would provide 300 feet of horizontal clearance. Total tonnage and composition projected to move over the Blair and Sitcum Waterways would be the same with or without channel improvements. However, channel improvements to Blair Waterway would permit transportation savings through economics of scale by allowing larger vessels from foreign and domestic ports to call, and through reduction in tidal delays. Federal maintenance of Sitcum Waterway would allow continued use by existing and future vessels expected to call. Replacement of a highway bridge crossing Blair Waterway to provide greater horizontal clearance would provide further transportation savings through economies of scale and reducing the number of tug assists. Transportation savings would accrue to shipments and receipts of general cargo, shipments of logs and woodchips, and receipts of crude petroleum. Additional transportation costs for general cargo and alumina due to shoaling of Sitcum Waterway would be eliminated with periodic maintenance.

Views of States and Non-Federal Interests.—The State of Washington and the City of Tacoma have endorsed the project. The Port of Tacoma has stated a willingness to provide items of local cooperation.

Views of Federal and Regional Agencies.—There have been no objections to the proposed navigation improvements.

Status of Final Environmental Impact Statement (EIS).—The Final EIS was sent to the Environmental Protection Agency on November 1, 1978.

Project Costs.—

Federal: $31,756.000.

Non-Federal: $144,000.

Description of Non-Federal Implementation Costs.—Non-Federal interests will be required to provide lands, easements and rights-of-way, dike construction, and a cash contribution for the Federal dredging due to land enhancement. Non-Federal implementation costs for the Federal project exclude the cost of bridge modifications ($732,000) allocated to the purposes of overland transportation which will be borne by the State of Washington, as the bridge owner.

Estimated Annual O&M Cost (October 1982 price levels):

Federal: $9,600.

Non-Federal: $0.

Benefit/Cost-Ratio.—2.5.

Remarks.—Current navigation problems relate to vessel safety and efficiency of operation (including tidal delays, maneuvering problems, and higher transportation costs) associated with too shallow a channel and too narrow a horizontal bridge clearance for Blair Waterway and less efficient operation if Sitcum Waterway is allowed to shoal.

Non-Federal interests have expressed interest in constructing a bypass road instead of replacing the East 11th Street bridge. The authorization therefore provides for construction of the road in lieu of the bridge replacement if the Secretary determines that construction of the road is economically and environmentally feasible and if the road is approved by the Governor of the State of Washington. The Federal share of the cost of constructing the road may not exceed the amount of the Federal share of constructing the bridge.

The Committee intends that a permanent bypass road for the Blair Waterway shall not be constructed in lieu of the East 11th Street bridge replacement recommended in the Report of the Chief of Engineers, dated February 8, 1977, House Document Numbered 96-26, unless (1) the bypass road is determined by the Secretary of Transportation to be economically and environmentally feasible, (2) construction of the bypass road is approved by the Governor of the State of Washington, and (3) the bypass road is affirmed through adoption of resolutions by both the Tacoma City Council and the Tacoma Port Commission.

GRAYS HARBOR, WASH.

Location.—Grays Harbor is a large tidal estuary in southwestern Washington. The entrance is 45 miles north of the mouth of the Columbia River and 110 miles south of the Strait of Juan de Fuca. The estuary lies entirely within Grays Harbor County, State of Washington.

Authority for Report.—Senate Public Works Committee resolutions adopted October 21, and December 30, 1957, and a resolution adopted July 16, 1958, by the House Public Works Committee.

Description of Recommended Plan.—The recommended plan includes enlargement of the existing 24.3-mile deep-draft ship channel at Grays Harbor from the Pacific Ocean through the harbor to Aberdeen, Washington, and up the Chehalis River to Cosmopolis, Washington. Replacement of the UPRR bridge at Aberdeen also is included as part of the plan.

Physical Data on Project Features.—The existing 30-foot channel would be deepened to a depth of 46 feet through the Outer Bar and widened in this reach from the existing 600 feet to a 1,000-foot-wide channel; thence, the entrance reach would be widened and deepened from the existing designated 350-foot-wide by 30-foot-deep channel to a channel tapering landward from 1,000 to 600 feet wide and 46 to 38 feet deep; thence, the existing channel to Cow Point would be widened and deepened from 350 feet wide and 30 feet deep to 400 feet wide by 38 feet deep for the South reach and Crossover reach, and to 350 feet wide by 38 feet deep for the Moon Island, Hoquiam, and Cow Point reaches; and thence, the Aberdeen and South Aberdeen reaches would be widened and deepened from the existing designated 200 feet wide by 30 feet deep channels to channels 250 feet wide by 36 feet deep. Turning basins located at Hoquiam and Aberdeen would be constructed and the existing railroad bridge would be replaced with a new bridge having horizontal clearance of 250 feet.

Views of States and Non-Federal Interests.—The State of Washington, through its Department of Ecology, endorsed the proposal. The Port of Grays Harbor, local sponsor for the project, has agreed to provide the necessary items of non-Federal responsibility. Indications of project support have also been received from the cities of Aberdeen, Cosmopolis, Hoquiam, and Oakville. Grays Harbor

County, Grays Harbor County Public Utility District No. 1, and Grays Harbor Pilot's Association have also endorsed the project.

Views of Federal and Regional Agencies.—No objections to the project have been expressed by any Federal agency, although a number have supported the need for the additional environmental studies proposed during Continued Planning and Engineering.

Status of Final Environmental Impact Statement.—The Final Environmental Impact Statement was filed with the Environmental Protection Agency on March 11, 1983.

Project Costs.—

Federal: $86,281,000.

Non-Federal: $0.

Description of Non-Federal Implementation Costs.—Non-Federal interests will provide lands, easements, and rights-of-way; alterations of structures and utilities; construction of dredge disposal containment dikes; and berth dredging required by construction of the enlarged navigation channel.

Estimated Annual O&M Cost (October 1982 price levels):

Federal: $2,499,000.

Non-Federal: $217,000.

Benefit/Cost Ratio.—1.4.

Remarks.—Undeveloped portions of the flood plain would not be affected. Wetlands in the study area would not be affected. Approximately 4 acres of shallow subtidal habitats removed by dredging would be mitigated through creation of replacement habitat. Approximately 20 acres of shallow subtidal and intertidal area located at Port of Grays Harbor slip No. 1 would be filled through the disposal of contaminated sediments. Initial project dredging could reduce the number of adult Dungeness crabs harvested by the crab fishery at Westport (500,000–3,000,000 crabs/year) by an estimated 1.45 to 3.40 percent for each of the 2 years of construction dredging and for each of the 2 years following construction. However, this impact would be avoided or mitigated through dredge equipment modification measures as part of the plan. Proposed maintenance dredging would increase the impact on the number of adult Dungeness crabs harvested by the crab fishery from the existing 0.73 percent to approximately 1.93 percent. However, this impact would be avoided or mitigated through dredge equipment modifications. Significant cultural resource sites would not be affected. State coastal zone management and local shoreline management programs would be complied with. Threatened or endangered species or their habitat would not be adversely affected. Water quality in the study area would be temporarily impacted during the project construction. Maintenance of harbor channels would not be significantly different from existing conditions. Therefore, new water quality impacts due to channel maintenance would be minimal.

Although the project involves depths greater than 45 feet, these depths are provided for navigation safety and do not accommodate deep draft vessels. The project is therefore included in Section 102 as a general cargo port.

As part of the continued planning and engineering for this project the Corps of Engineers, in consultation with appropriate Federal, State and local agencies, will reevaluate all alternatives for a dredged material disposal site, in order to find an environmentally acceptable site.

EAST, WEST, AND DUWAMISH WATERWAYS, WASH.

Location.—The East, West, and Duwamish Waterways are segments of an existing Federal navigation project in Seattle Harbor, Washington. Access to the project is gained from Elliott Bay, part of the 2,500-square-mile Puget Sound estuary which connects with the Pacific Ocean via the Strait of Juan de Fuca.

Authority for Report.—Senate Public Works Committee resolution adopted May 18, 1956.

Description of Recommended Plan.—The recommended plan includes improvement of the existing Federal navigation channels in the East, West, and Duwamish Waterways. The improvement would commence from the East and West Waterway entrances at Elliot Bay, then upstream on both waterways to where they join and become the Duwamish Waterway, and up the Duwamish Waterway to the First Avenue South Bridge; a distance of about 2.5 miles. The plan also includes replacement of the restrictive Burlington Northern Railroad (BNRR) bridge, improvement of the turning basin at Harbor Island, and deauthorization of an unneeded turning basin adjacent to the First Avenue South Bridge. A public boat launching ramp would be provided as a part of the plan.

Physical Data on Project Features.—The existing 34-foot channels in the East and West Waterways would be deepened to a depth of 39 feet and the designated channel widths narrowed from the existing 750 to 500 feet to provide additional safe clearance from vessel berthing areas. The Duwamish Waterways up to the First Avenue South Bridge would be deepened from 30 to 39 feet and widened from 200 feet to 250 feet (except the lower 1,000-foot-long reach of the Duwamish Waterway which would remain at the 200-foot width). The turning basin at the head of Harbor Island would be deepened to 39 feet. The unneeded turning basin adjacent to the First Avenue South Bridge would be deauthorized. The existing BNRR bridge would be replaced with a new bridge have a horizontal clearance of 250 feet and vertical clearance of 140 feet at mean higher high water. A one-lane boat launch ramp and associated access road and parking area would be constructed for public access to the upper Duwamish Waterway.

Approximately 7 acres of upland would be provided by local interests for channel enlargement and slope stabilization and about 29 acres for dredged material disposal at a shallow water, intertidal, and deepwater site located between the Port of Seattle's piers 90 and 91 in Elliot Bay. For mitigation purposes, approximately 4 acres would be acquired at the head of navigation in the Duwamish Waterway for development of shallow water/intertidal fish habitat, and an estimated 12 acres of deepwater habitat in Elliot Bay would be improved for fish through construction of an artificial reef. An additional 2 acres, adjacent to the 4-acre mitigation site on the Duwamish Waterway, would be acquired and developed as new shallow water habitat for fishery enhancement. Local interests would provide ½ acre of land for construction of a public boat launch ramp and associated access road and parking space on the upper Duwamish Waterway. An estimated 1.9 acres would be acquired by BNRR for construction of the new railroad bridge.

Views of States and Non-Federal Interests.—The Governor of Washington endorsed the proposed navigation improvement in a letter dated August 4, 1982. The State Department of Ecology confirmed that the recommended project is consistent with the State Coastal Zone Management Program. The Port of Seattle, local sponsor for the project, agreed to provide the necessary items of non-Federal participation. The Muckleshoot Indian Tribe, local sponsor for the 2-acre fishery enhancement proposal, agreed to cost share in the purchase of land and to operate and maintain the enhancement project. Other letters of project support have been received from the City of Seattle; the Port Angeles Pilots; the Northwest Towboat Association; and the International Longshoremen's and Warehousemen's Union, Local 19.

Views of Federal and Regional Agencies.—No objections to the project have been expressed by any Federal agency. However, a number have suggested that the proposed mitigation site be accomplished through the development of several sites scattered along the Duwamish Waterway in lieu of the recommended site in Elliot Bay, and the specific alternative disposal sites be reevaluated during the Continuation of Planning and Engineering phase of project development.

Status of Final Environmental Impact Statement (EIS).—The final EIS was filed with EPA in October of 1983.

Project Costs:

Federal: $48,745,000.

Non-Federal: $4,455,000.

Description of Non-Federal Implementation Costs.—Non-Federal interests will provide lands, easements, and rights-of-way for channel enlargement and public access; alterations of structures and utilities; construction of dredge disposal containment dikes; berth dredging required by construction of the enlarged navigation channel; BNRR's portion of bridge replacement costs; the extra cost incurred as a result of modifying channel enlargement to protect valuable upland industrial property; and the local share of cost apportionment for mitigation and enhancement.

Estimated Annual O&M Cost (October 1982 price levels):

Federal: $21,000.

Non-Federal: $7,000.

Benefit/Cost Ratio.—2.3.

Remarks.—Disposal sites are expected to be further evaluated in connection with the report submitted pursuant to Section 103.

SECTION 103

Subsection (a) of Section 103 provides that, for any project authorized in Title I, where a final report of the Chief of Engineers has not been completed on the date of enactment of the Act, the Secretary shall, within one year of the date of enactment, submit a copy of any required final environmental impact statement to the House Committee on Public Works and Transportation and the Senate Committee on Environment and Public Works. Any recommendations of the Secretary with respect to the project are also to be submitted. No appropriation may be made for the acquisition of land for, or the actual construction of, the project unless such acquisition and construction are approved by resolutions of the two committees. This prohibition does not apply to funds appropriated to the Environmental Protection and Mitigation Fund pursuant to section 1104. Monies in this fund may be expended to mitigate losses to fish and wildlife production and habitat prior to adoption of the Committee resolutions.

Subsection (b) of Section 103 makes inapplicable any provision in any one of the reports designated in Title I which recommends that a State contribute in cash 5 percent of the construction costs allocated to non-vendible project purposes and 10 percent of the costs allocated to vendible project purposes. Recommendations for such contributions were included in some Corps of Engineers reports on water resources projects prepared during the preceding Administration. The Committee has adopted a cost sharing policy for ports, which is set forth in Section 105. Section 103(b) is designed to remove any doubt as to whether the recommendations for 5 and 10 percent cash contributions contained in some Corps reports are still applicable.

SECTION 104

This section provides a mechanism to permit non-Federal interests to plan, design, and construct port projects and to be later reimbursed for those costs which ordinarily would be a Federal responsibility. The purpose of the provision is to allow a project to be expedited by non-Federal interests.

Subsection (a) of Section 104 authorizes non-Federal interests to plan and design projects for ports which are not authorized projects and to submit the plan and design to the Secretary for review. The plan and design are to be comparable to the work undertaken by the Corps of Engineers on a proposed project prior to authorization of construction. The Secretary must review each plan and design submitted under the section in order to determine whether or not the plan and design and the process under which they are developed comply with Federal laws and regulations applicable to the planning and designing by the Secretary of port projects. Within 180 days the Secretary must transmit to the Congress the results of the review, together with any recommendations the Secretary may have concerning the project. The plan and design, with the Secretary's recommendations, can then form the basis of an authorization for construction, just as a Corps of Engineers feasibility report would. For this reason, it is necessary that the non-Federal interests follow the same procedures as those used by the Corps.

If the project is subsequently authorized for construction, the non-Federal interests are to be reimbursed for the cost of developing the plan and design. Reimbursement is subject to funds being appropriated for that purpose. Where a deep draft navigation project to be constructed by the Secretary is involved, the cost of developing the plan and design will be credited toward the non-Federal share of the project costs, in lieu of reimbursement. The Secretary is expected to implement necessary measures to insure that the costs for which reimbursement is made or credit is given are reasonable.

Subsection (b) of Section 104 authorizes non-Federal interests to construct navigation projects for ports and to be reimbursed at a later date. The project must be an authorized project, and it must be one for which appropriations may be made for acquisition of land and actual construction. If Committee resolutions are required prior to such appropriations, the resolutions must be adopted before non-Federal interests commence construction. The Secretary must approve the plans for construction, and regularly monitor and audit the project being constructed in order to ensure that the construction is in compliance with the plans approved by the Secretary. The non-Federal interests are to be reimbursed for the Federal share of the construction costs. Reimbursement is subject to funds being appropriated for that purpose.

Subsection (c) provides that Section 104 is not applicable to that portion of the Saint Lawrence administered by the Saint Lawrence Seaway Development Corporation. Because of the unique nature of the Seaway and the Seaway Development Corporation, and the relationship with Canada with regard to the Seaway, the Committee felt it best to leave planning and construction of improvements to the Seaway Development Corporation.

SECTION 105

This section establishes the Federal share for port projects. For general cargo ports—those having a depth of 45 feet or less—the Federal share is 100 percent of the costs of planning, designing, engineering, surveying, constructing the general navigation features, and operating and maintaining the project. This is the current policy, and no change is recommended by the Committee.

A change is made, however, in cost sharing policy for the relocation of certain utilities. These include relocations necessary for the project of utilities which require a permit from the Secretary under Section 10 of the Act of March 3, 1899. Section 10 prohibits the building of any structure in or the alteration of the capacity of any navigable water of the United States unless authorized by the Secretary of the Army.

Section 105 provides for cost sharing, among the Federal government, the non-Federal interest, and the owner of the facility being relocated, of the costs of relocation of any oil, natural gas, or other pipeline, any electric transmission cable or line, any communications cable or line, and facilities related to such pipeline, cable or line the relocation of which is necessary for construction, operation, and maintenance of each navigation project for a port.

The Committee, in Section 105, has recognized both the legal responsibility of the owners and the impact of a Federal navigation project. Fifty percent of the relocation costs are made a Federal responsibility, in the case of general cargo ports, and 50 percent of the costs are to be paid by the owners of the facilities being relocated.

While the Federal share for general cargo ports follows current cost sharing policy, substantial participation by non-Federal interests is required for deep-draft ports—those with a depth greater than 45 feet. General cargo ports serve all commodities and have widespread benefits. Current cost sharing is therefore appropriate. Deep draft ports, on the other hand will serve very few commodities. Under these circumstances, which involve a few ports for specialized purposes, the Committee considers cost sharing appropriate.

A non-Federal share for deep draft ports, therefore, is established at 50 percent of the incremental costs associated with that part of the project deeper than 45 feet. In the case of utility relocations, the utility owner is responsible for paying 50 percent of the cost. The non-Federal sponsor pays one-half of the other 50 percent just as it pays one-half of the other costs which would be Federal costs if the project had a depth of 45 feet or less. Hence, for the incremental relocation costs associated with depths greater than 45 feet, the Federal share is 25 percent and the non-Federal share is 75 percent, with the 75 percent being shared one-third by the project sponsor and two-thirds by the owner of the facility being relocated.

The expense of relocation includes the relocating of any pipeline or cable to the depth required to provide necessary coverage and clearance and as required to permit a reasonably stress-free crossing, in accordance with good engineering practices.

Subsection (e) of Section 105 provides that the Federal share of any cost of a navigation project for a port, for which a Federal share is not specifically mentioned in subsections (a), (b), (c), or (d), shall be the share of such cost otherwise provided by law. This means the share specified in the document or report in accordance with which a particular project is authorized. Where no report is referenced in the authorizing language, the Secretary is expected to follow traditional policies for cost sharing of matters not covered in the four subsections. The cost of mitigation of damages to fish and wildlife, for example, is shared in the same proportion as the basic project purpose of navigation.

Subsection (f) makes the cost sharing provisions of subsections (a), (b), and (d), relating to planning, construction and utility relocations, inapplicable to projects for which Federal funds have been obligated for actual construction before July 1, 1983. The Federal and non-Federal responsibilities for these aspects of such projects will continue to be as specified in the project authorizations.

Subsection (g) preserves the cost sharing recommended in the report of the Chief of Engineers on Gowanus Creek Channel, New York, in view of the involvement of a single user.

Section 106

This section provides that the non-Federal share of any port project shall be paid to the Secretary for deposit in the general fund of the Treasury. The Committee intends that the non-Federal share may be paid in increments during construction, as agreed to by the Secretary and non-Federal interests.

Section 107

This section provides that any port project may be constructed in useable increments. This will permit the "phasing in" of a project to meet developing needs. A channel might be dredged in increments to its authorized depth and width to accommodate larger vessels as they are brought on line, thus avoiding the expenditure of funds before the full project dimensions are needed. Likewise, a channel might be constructed to less than its authorized length pending development of projected traffic, or an inbound or outbound channel may be constructed separately to handle import or export trade if the need for one or the other takes precedence.

SECTION 108

This section limits the imposition of fees on vessels by non-Federal interests. If a non-Federal interest collects fees on vessels in order to pay its share of a deep-draft port, the fees may only be collected from vessels which require a channel with a depth of more than 45 feet. Section 108 does not authorize the collection of fees from vessels. Rather, it states that if non-Federal interests wish to collect fees under any authority which might otherwise exist, they can only do so with respect to vessels which require the greater depths. A relatively few vessels will need depths greater than 45 feet, and they will carry a limited number of commodities. The Committee considers it equitable to limit the collection of fees to pay the non-Federal share of the project to those vessels which require the greater depth.

Section 108 does not require the collection of vessel fees. Non-Federal interests, if they wish, may fund their share from general revenues, bonds, dedicated tax revenues, or other sources.

SECTION 109

This section authorizes the appropriation of funds from the Port Infrastructure Development and Improvement Trust Fund to carry out the provisions of Title I.

SECTION 110

Section 110 defines a number of terms used in Title I.

The term "deep-draft port" means a port which is authorized to be constructed to a depth of more than 45 feet (other than a port for which a project is authorized by Section 102 of this title); the term "general cargo port" means a port for which a project is authorized by Section 102 of Title I and any other port which is authorized to be constructed to a depth of 45 feet or less; the term "non-Federal interest" has the meaning such term has under Section 221 of the Flood Control Act of 1970; the term "port" means (A) any port or channel in the United States with a depth authorized by law of more than fourteen feet, including any channel administered by the Saint Lawrence Seaway Development Corporation and any channel connecting the Great Lakes, and (B) any lock or other improvement on any such channel; except that such term does not include an entrance channel providing access solely to a harbor with an authorized depth of fourteen feet or less and does not include the Bonneville Lock and Dam project on the Columbia River; and the term "United States" means the several States, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin

Islands, Guam, American Samoa, the Trust Territory of the Pacific Islands, and the Northern Mariana Islands.

TITLE II

INLAND WATERWAY TRANSPORTATION SYSTEM

SECTION 201

This section authorizes the construction of seven critically needed lock and dam projects on the inland waterway system. These project consist of replacements of obsolete structures and improvements to structures needed to prevent unacceptable constraints on navigation. The Committee has determined that the rehabilitation and repair of these projects is of the highest priority.

Oliver Lock is obsolete, and its capacity will be reached by 1990. Gallipolis will be seriously congested and obsolete by 1985. Winfield is obsolete. Locks and Dams 7 and 8 are over 50 years old. The new Lock and Dam 26 will be at capacity by 1990. Also, by 1990 Bonneville Lock will be 50 years old, and its capacity will have been reached. All of these projects are essential to the efficient and safe operation of the inland waterway system. Because of the early dates by which these existing projects must be replaced or improved, Section 201 instructs the Secretary to complete each of these improvement projects within seven years after first appropriation of funds for that project. Descriptions of the projects follow.

OLIVER LOCK AND DAM, ALA.

The Federal project popularly known as the Black Warrior-Tombigbee Waterway was authorized by a series of Congressional acts from 1884 to 1960 to provide a navigation channel 9 feet deep and 200 feet wide, where practicable, from Mobile to points on the Mulberry, Sipsey and Locust Forks a few miles above Port Birmingham, a total distance of 453 miles. The authorized project actually begins at the mouth of the Tombigbee River, where it joins the naturally deep Mobile River, about 45 miles above Mobile. The original system of 17 dams and 18 locks was constructed between 1895 and 1915, with locks generally 52 feet wide and 285 feet long and with lifts ranging from 9 to 36 feet. The John Hollis Bankhead Dam (originally known as Dam 17), the uppermost structure, is the highest dam in the system. The recently completed single-lift lock has a maximum lift of 69 feet.

The first modernization structure, the William Bacon Oliver Lock and Dam at Tuscaloosa, was completed in 1940 to replace three of the oldest of the original structures. Since that time four additional new structures have been completed to replace thirteen more of the original structures; these are, in chronologicl order of construction, the Demopolis Lock and Dam at Demopolis, the Warrier Lock and Dam near Eutaw, the Coffeeville Lock and Dam near Coffeeville, and the Holt Lock and Dam above Tuscaloosa. The only original structure remaining on the waterway is the Bankhead Lock and Dam, the modernization of which is esentially complete.

Use of the waterway has increased steadily, today it is one of the most important water routes in the Southeast. The principal commodities moved are coal, iron ore and concentrates, petroleum products, both refined and crude, limestone, sand and gravel, basic chemicals, logs, sulphur, iron and steel manufactures, and manganese ores.

The main features of the existing project are a lock against the left bank with inside dimensions of 95 by 460 feet and a maximum lift of 28 feet, and a fixed-crest spillway 700 feet long. The lock chamber is considerably smaller than the newer replacement locks on the Waterway. The lake, which remains largely within the original river banks, extends upstream 9 miles to the Holt Lock and Dam. Replacement of the lock with a larger structure is necessary to eliminate congestion and remove constraints on projected increases in traffic.

Section 201 authorizes construction of a replacement lock and dam in accordance with such plans as the Secretary determines are advisable, including facilities for the generation of hydroelectric power. The Secretary is directed to submit a copy of any required final environmental impact statement, and any recommendations of the Secretary with respect to the project, to the House Committee on Public Works and Transportation and the Senate Committee on Environment and Public Works within one year. Except for funds from the Environmental Protection and Mitigation Fund, no appropriations may be made for acquisition of land for, or actual construction of, the project until approved by resolutions of the two Committees.

The report of the District Engineer, Mobile, Alabama, has been completed for this project. A description of the recommended plan follows.

Location.—The existing and proposed lock are located on the Black Warrior River within the City of Tuscaloosa, Alabama.

Authority for Report.—House Public Works Committee resolution adopted April 21, 1950.

Description of Recommended Plan.—A 110 by 600-foot lock with a powerhouse to be located either at the existing project site or 2,700 feet downstream therefrom.

Physical Data on Project Features.—

Structural

Existing site: Portions of the existing dam would be removed to accommodate the new lock. The pool elevation would not change from the current elevation of 122.9 feet. The dam would be a concrete fixed crest structure on the Northport side of the new lock and a gated structure on the Tuscaloosa side. The proposed lock would be centrally located in the river channel and have a chamber size of 110 by 600 feet with a lift of 28 feet. The powerhouse would be located on the Northport side of the fixed crest spillway.

Downstream project site: A fixed-crest dam 815 feet would maintain an upper pool at 122.9 feet, resulting in the inundation of the 2,700 feet of river between the proposed dam and the existing facility with 28 feet of water. The 110 by 600-foot lock chamber would be located on the right descending bank. The powerhouse would be located on the Tuscaloosa side of the spillway.

Water Use

Existing site: Water passing the dam would be used to produce hydroelectric power. There is no storage capability due to the fixed crest spillway.

Downstream site: Water passing the dam would be used to produce hydroelectric power. There is no storage capability due to the fixed crest spillway.

Views of State and Non-Federal Interests.—The State of Alabama has endorsed the proposed project with all costs assigned to the Federal Government.

Views of Federal and Regional Agencies.—Agency comments have been generally favorable. Water quality and fish and wildlife concerns have been addressed.

Status to Final Environmental Impact Statement.—An Environmental Impact Statement has not yet been filed with the EPA.

Project Cost: $120,000,000 (all Federal).

Benefit/Cost Ratio: 2.6.

Remarks.—The existing Oliver Lock, 95 feet by 460 feet poses a constraint to current and projected navigation. The magnitude to which traffic is constrained was evaluated using a computer simulation model. The model simulated traffic movement on a "system" which included the Black Warrior-Tombigbee, the Tennessee-Tombigbee, and portions of the Gulf Intracoastal Waterway, Tennessee and Mississippi River Systems. During the planning process, an opportunity for production of hydropower and very limited recreation use of a boat launching ramp were also considered. Therefore, the proposed plan for replacement of Oliver Lock includes a small 16.3 MW hydropower plant of and a boat ramp in the tailwaters area to be used primarily for operation and maintenance activities. The ramp would also be used by fishermen and recreational boaters.

Alternative Plans Considered.—All of the plans considered in the final array contained a larger navigation lock and powerhouse and differed only in site location. There were four alternatives carried to detailed analysis stage of planning, during which two alternatives were eliminated for economic reasons. One alternative involved extensive channel work, relocation of a railroad bridge and spur track, and the destruction of a country club, while the other required significant expenditures for a modification of the spillway. The best two alternatives consist of: (1) a lock located at the existing facility about mid-river with a spillway containing both fixed crest and gated sections, and a powerhouse; or (2) a lock located 2,700 feet downstream of the existing facility with an 815-foot fixed-crest spillway separating a 110 by 600-foot lock and a powerhouse.

GALLIPOLIS LOCKS AND DAM, OHIO AND WEST VIRGINIA

Location.—Gallipolis Locks and Dam is situated in the Middle Ohio Valley at Ohio River mile 279.2, about 14 miles downstream from the mouth of the Kanawha River and about 30 miles upstream from the City of Huntington, West Virginia.

Authority for Report.—Section 115, of the Water Resources Development Act of 1976 (Public Law 94-587).

Description of Recommended Plan.—The recommended plan includes construction of two new locks, measuring 1,200 by 110 feet and 600 by 110 feet, in a canal that would bypass the existing project, and major rehabilitation of the existing dam.

Physical Data on Project Features.—

Structural Features

(1) Major rehabilitation of the existing navigation dam, undertaken in conjunction with the construction of the new locks, will include replacing the dam roller gates, strengthening the foundation and adding an emergency bulkhead closure system. Adequate authority exists to accomplish this rehabilitation.

(2) The recommended plan would include the construction of two new navigation locks in a canal which would bypass the existing project on the West Virginia bank. The main lock would be 1,200 feet long and 110 feet wide, and the auxiliary lock would be 600 feet long and 100 feet wide. The navigation canal would be about 1.7 miles long, with a minimum bottom width of 500 feet. Vertical clearance would be 18 feet over both the upper and lower lock gate sills.

(3) The recommended plan would require 275 acres of land for construction of the locks and canal, of which 82 acres presently are Federal project lands. The disposal site for excavated materials requires an additional 360 acres, making a total requirement of project lands of 635 acres, including Federal lands. No relocations would be required as no residential structures are in the affected area. However, project construction would require acquisition of portions of seven operating farms.

Environmental Features

(1) The recommended plan includes acquisition of 840 acres of separable lands at the Lesage-Greenbottom swamp area for mitigation of the loss of wetlands and fish and wildlife resources. The area includes 126 acres of high quality wooded swamp, surrounded by 714 acres of farmland.

(2) On project lands, a portion of the disposal area would be revegetated and managed for fish and wildlife mitigation. A portion of the fill surface would be contoured so that an artifical "perched" wetland could be developed.

Views of State and Non-Federal Interests.—The State of West Virginia has reaffirmed its support for the plan. The State of Ohio concurred in the proposed improvements and urged early authorization by Congress. The Waterway Towing Industry strongly supports the plan recommended by the Chief of Engineers.

Views of Federal and Regional Agencies.—U.S. Department of the Interior indicated no objections to the proposed report.for what is considered an overall environmentally acceptable project. The Secretary of Agriculture expressed concern over the conversion of prime farmland to wetlands for fish and wildlife mitigation purposes. The Chief of Engineers responded that every attempt will be made in advanced engineering and design studies to minimize Federal acquisition of farmland and agriculture production losses. The Department of Transportation and the Environmental Protection Agency have no objections to the project.

Status of Final Environmental Impact Statement (EIS).—The Final EIS was filed with the Environmental Protection Agency on January 8, 1982.

Project Costs.—

Federal: $260,000,000.

Non-Federal: $0.

Benefit/Cost Ratio.—12.2.

Remarks.—The navigation problems at Gallipolis Lock and Dam stem from two conditions: (1) the location of the project in a riverbend which makes locking conditions difficult and dangerous during moderate- to-high river stages and (2) the small size of the lock chambers in comparison to the newer Ohio River navigation projects, which results in excessive lock delays and increased barge transportation costs.

WINFIELD LOCKS AND DAM, W. VA.

The Kanawha River watershed, from its headstreams in the mountains of northwestern North Carolina, extends northward across southwest Virginia and northwesterly across West Virginia to the Ohio River. The basin has a total length of about 190 miles and a total area of about 12,300 square miles, of which 8,450 square miles is in West Virginia, 3,080 in Virginia, and 770 in North Carolina.

The Kanawha River is formed by the junction of the Gauley River and the New River in central West Virginia and flows ninety-seven miles northwestward to the Ohio River at Point Pleasant, 266 miles downstream from Pittsburgh. The New River originates in North Carolina and the Gauley River in West Virginia. Principal Kanawha affluents in West Virginia in addition to the Gauley and New Rivers are, in descending order, the Bluestone and Greenbrier Rivers, tributary to the New River, and the Elk, Coal, and Pocatalico Rivers, tributary to the Kanawha River proper. Of the tributaries named, all lie entirely within West Virginia except the Bluestone, which rises in Virginia.

The Kanawha basin economy is varied, with economic activities ranging from subsistence farming to highly sophisticated industrial production. The chemical industry is the major employment category, though coal mining, textile manufacturing, and related services make significant contributions to the economy.

During the period from 1950 to 1970 the region experienced a declining population, reflecting the increased mechanization of coal mining, as well as sagging coal production. The declining trend has since seen a sharp reversal, many counties showing gains of 20 to 40 percent in the period from 1970 to 1980. The Greenbrier County population gain was 29.6 percent, while Kanawha County, containing Charleston and associated industrial communities, gained 15.6 percent during that time.

The existing Kanawha River navigation system was constructed between 1931 and 1937, consisting of four units; the London, Marmet, and Winfield Locks and Dams on the Kanawha River and the Gallipolis Locks and Dam on the Ohio River below the mouth of the Kanawha. The first two of these structures were built under authority of the River and Harbor Act of 1930, the other two under authority of the Act of 1935.

The indicated structures, in conjunction with channel dredging, provide a slackwater channel with a minimum depth of nine feet to a point ninety-one miles above the mouth of the Kanawha. The Gallipolis Locks and Dam serves also as a unit of the canalization system for the Ohio River. Twin lock-chambers are provided at each of the Kanawha River dams, the clear dimensions of these being 56 feet by 360 feet. At Gallipolis Dam the main lock-chamber clear dimensions are 110 feet by 600 feet and those of the auxiliary lock are 110 feet by 360 feet.

Winfield Locks and Dam is the downstream unit of the three Kanawha River navigation projects. Winfield Dam is 31 miles above the mouth of the Kanawha River and 28 miles downstream from Charleston, West Virginia. It provides a channel with a minimum navigable depth of 9 feet, extending 37 miles to Marmet Dam. The project was completed in 1933 and was constructed, along with Gallipolis Locks and Dam on the Ohio River, to replace the prior system of low-lift dams provided in the lower Kanawha River in the late 1800's.

The Winfield Locks are on the right bank and consist of twin, parallel chambers, each with clear interior dimensions of 56 feet by 360 feet length. A lift of 28 feet is provided between the normal pools. The dam is a nonnavigable roller gate structure with a top length of 677 feet. Like the other Kanawha River dams, Winfield Dam has a privately-owned hydroelectric plant at the left abutment. The powerhouse contains three turbine generator units, each of 4,920 kilowatts capacity. The cost of the dam and locks was about $6,300,000.

Downbound traffic through Winfield Locks consists almost entirely of coal, the larger portion being steam coal destined for electric generating plants on the Ohio River, while a smaller but substantial portion is metallurgical coal destined for steel mills in the Pittsburgh, Wheeling, and Cincinnati districts. Upbound traffic through Winfield is principally chemicals for the large industrial complex at Charleston.

Winfield Locks and Dam is now 50 years old and in need of improvement. Also, an additional, larger, lock is needed to more efficiently serve present and anticipated traffic. Section 201 authorizes the construction of improvements to, and an additional lock in the vicinity of, Winfield Locks and Dam, and the acquisition of lands for fish and wildlife mitigation, in accordance with such plans as the Secretary determines are advisable. The Secretary must submit a copy of any required environmental impact statement, and any recommendations of the Secretary with respect to the project, to the House Committee on Public Works and Transportation and the Senate Committee on Environment and Public Works within 1 year. Except for funds from the Environmental Protection and Mitigation Fund, no appropriations may be made for acquisition of land for, or actual construction of, the project until approved by resolutions of the two Committees.

The Committee is aware of concerns that the construction of the Winfield project could require relocation of a cemetery and of existing industries which would potentially involve the loss of a number of jobs in the area. The Secretary is directed to design the project with a view toward minimizing such relocations. The Committee will examine this matter further when the report required by the authorizing language is submitted to it.

LOCK AND DAM 7 REPLACEMENT, PENNSYLVANIA

Location.—Lock and Dam 7 is located on the Monongahela River in southwestern Pennsylvania, about 85 river miles above the Monogahela-Ohio River junction.

Authority for Report.—House Public Works Committee resolution adopted September 23, 1976.

Problems and Opportunities Identified in Study.—The small dimensions of Lock 7, 56 feet by 360 feet, are not compatible with more modern locks on the Ohio River System and will create an increasing traffic "bottleneck" for barge navigation. The existing lock and dam were constructed in 1923.

Alternative Plans Considered.—A study is still underway by the Pittsburgh District Engineer; however, alternative structural plans will include various sizes and new lock chambers and various locations for lock and dam construction.

Description of Recommended Plan.—Based on results of a study completed in 1972, the plan could call for the construction of a new lock and dam at the upstream Grays Landing site. The existing lock and dam would be removed.

Physical Data on Project Features.—The plan would consist of construction of a new lock and dam at the Grays Landing site at river mile 82.2, with new lock dimensions of 84 feet by 720 feet, together with the removal of the existing facilities.

Remarks.—Locks 7 and 8 are important units in the Monongahela River section of the national inland waterway network. At one and five miles, respectively, north of the West Virginia-Pennsylvania line, they permit water transport of coal and limestone from West Virginia mines to the Pittsburgh industrial area, and the delivery of petroleum, and other products from Mississippi River and Gulf ports to Morgantown and Fairmont. The replacement of Lock and Dam 7 and the Lock at Dam 8 are justified based on present and future navigation tonnage moving within the Monongahela River subsystem. The replacement structures will be compatible with the barges used and proposed for use on the Ohio River to assure effective operation of equipment for the entire system. Section 201 authorizes the project for replacement of Lock and Dam 7 in accordance with the 1972 report of the Chief of Engineers, with such modifications as the Secretary determines are advisable.

LOCK AND DAM 8 REPLACEMENT, PENNSYLVANIA

Location.—Lock and Dam 8 is located on the Monongahela River in southwestern Pennsylvania, about 90 river miles above the Monongahela-Ohio River junction.

Authority for Report.—House Public Works Committee resolution adopted September 23, 1976.

Problems and Opportunities Identified in Study.—The small dimensions of Lock 8, 56 feet by 360 feet, are not compatible with more modern locks on the Ohio River System and will create an increasing traffic "bottleneck" for barge navigation. The existing lock and dam were constructed in 1925.

Alternative Plans Considered.—A study is underway by the Pittsburgh District Engineer; however, alternative structural plans will include various sizes of lock chambers and various locations for a new lock and dam.

Description of Recommended Plan.—There is no recommended plan by the Corps of Engineers at this time since the study is still underway. However, based on results of a study completed in 1972 by the Chief of Engineers, the plan could call for the construction of a new lock landward of the existing lock. There would be no new dam construction.

Physical Data on Project Features.—The plan would consist of construction of a new lock at river mile 90.2, with new lock dimensions of 84 feet by 720 feet, together with the retention of the existing facilities.

Project Cost.—$63,000,000 (all Federal).

Remarks.—Locks 7 and 8 are important units in the Monongahela River section of the national inland waterway network. At one and five miles, respectively, north of West Virginia-Pennsylvania line, they permit water transport of coal and limestone from West Virginia mines to the Pittsburgh industrial area, and the delivery of petroleum and other products from Mississippi River and Gulf ports to Morgantown and Fairmount. The replacement of Lock and Dam 7 and the Lock at Dam 8 are justified based on present and future navigation tonnage moving within the Monongahela River system. The replacement structure will be compatible with the barges used and proposed for use on the Ohio River to assure effective operation of equipment for the entire system and achieve maximization of additional benefits. The 1968 volume of 8 million tons passing Lock 7 was of vital importance to the industrial and economic strength of the upper Ohio region. The reduced cost of transportation resulting from the Monongahela River navigation project has contributed to both regional and national development and continuation of navigation is in the national interest.

The existing locks at Dams 7 and 8 were opened in 1925 for the commerce expected at that time. Commerce has increased over 12 times since then and is projected to increase 4 more times in the next 50 years. There now are traffic delays at the existing locks, and increasing traffic will result in serious interference with navigation. Maintenance costs and problems are also increasing, and longer repair times will add to traffic difficulties.

Modernization of the Monongahela River waterway has been underway since the initial locks were constructed in 1840. The entire subsystem was reconstructed between 1902 and 1932. Five of the present nine Monongahela River locks and dams were built or reconstructed since 1950. Locks 7 and 8 require replacement now. The existing pairs of locks at Dams 3 and 4 will require modernization in the future as traffic increases. However, for the next few years passage through inadequate Locks 7 and 8 will control traffic on this part of the inland waterway network. Without their replacement they will prevent full realization of benefits from the adjacent modernized waterway.

Section 201 authorizes the project for Lock and Dam 8 replacement in accordance with the 1972 report of the Chief of Engineers with such modifications as the Secretary determines advisable.

LOCK AND DAM 26, ILLINOIS

The replacement of Locks and Dam 26 at Alton, Illinois, with a new dam and a single 110-foot by 1,200-foot lock, was authorized by Section 102 of Public Law 95-502. That Act also directed that the lock and dam be designed and constructed to provide for possible future expansion. The Upper Mississippi River Basin Commission was directed to prepare a comprehensive Master Plan for the management of the Upper Mississippi River system in cooperation with appropriate Federal, State and local officials. The Master Plan was submitted to Congress January 1, 1982. The plan recommends, among other things, that Congress immediately authorize the engineering, design, and construction of a second chamber, 600 feet in length, at Lock and Dam 26.

Location.—Mississippi River 200.78 miles upstream from the confluence of the Mississippi and Ohio Rivers, near Alton, Illinois.

Authority for Report.—Public Law 95-502, Section 101, October 21, 1978.

Date of Report.—A report was submitted to Congress by the Upper Mississippi River Basin Commission on January 1, 1982. The Corps of Engineers was a member of that Commission.

Problems and Opportunities Identified in the Study.—As part of its general charge, the Commission was to conduct studies which addressed key issues of concern including:

The navigation carrying capacity of the Upper Mississippi River System.

The relationship of capacity expansion to national transportation policy.

The effect of expansion of navigation capacity on the Nation's railroads.

The transportation costs and benefits to the Nation of expanded navigation capacity.

The economic need for a second lock at Alton, Illinois.

The systemic ecological impacts of present and expanded navigation capacity on fish and wildlife, water quality, wilderness, and recreational opportunities.

The means and measures to prevent or minimize such impacts.

The immediate environmental effects of a second lock at Alton, Illinois.

Physical Data on Project Features (Second Lock Only).—One 600-foot by 110-foot lock at Lock and Dam No. 26.

Status of Final Environmental Impact Statement.—Federal Register Publication of Final Environmental Impact Statement on the Master Plan, January 15, 1982. Public review ended February 16, 1982.

Project Cost.—$245,000,000. (all Federal).

Benefit/Cost Ratio.—7.1.

Remarks.—The recommendations contained in the Master Plan incorporate environmental quality in their overall purpose.

The formulation of these recommendations is based on three assumptions which were significant in determining the final level of environmental quality achieved in the overall Plan. These assumptions were: (1) The Upper Mississippi River System is a multipurpose system with two Congressional mandates (commerical navigation and national wildlife refuges); (2) Immediate actions are necessary to further define and provide for the near-term needs of the multipurpose objectives; and (3) Currently available economic and environmental data are not conclusive enough to make sound management decisions for the period beyond 1990-95.

Early authorization of the second lock is necessary both to meet the needs of anticipated traffic and to realize substantial savings in construction costs. If engineering and design work can be commenced in the near future it will be possible to construct the second lock during construction of the new dam, rather than afterwards, resulting in savings of approximately $85,000,000.

BONNEVILLE LOCK AND DAM, OREGON AND WASHINGTON

Location.—Bonneville Navigation Lock is located about 40 miles east of Portland, Oregon, and Vancouver, Washington, on the Columbia River.

Authority for Report.—Senate Public Works Committee resolutions adopted July 27, 1962, and April 11, 1967.

Description of Recommended Plan.—The recommended plan includes construction of a new lock (86 feet wide by 675 long) and approach channels adjacent to and south of the existing lock on the Oregon shore. Relocations would include a portion of the Union Pacific Railroad's main line, the project access road, four water supply wells for the Oregon State hatchery, and a portion of the North Pacific Division Hydraulic Laboratory.

Physical Data on Project Features.—The recommended plan would include construction of a new larger lock (86 feet wide by 675 feet long) and approach channels. The lock's size would be compatible with upstream locks and with commerce needs. With the new lock in place, the annual shipping capacity would be increased from the current 13 million tons per year to 30 million tons. Delays prior to and during lockage would be greatly reduced—from 12.7 hours to 1.9 hours by the year 1988. The new lock alignment would increase visibility and safety for towboat operators. Approximately one-fourth mile of Union Pacific mainline and side trackage, a portion of the project access road, four water supply wells for the Oregon State hatchery at Tanner Creek, and one building of the decommissioned North Pacific Division Hydraulic Laboratory would need to be relocated to provide room for the new lock. Lands, easements, and right-of-way would need to be obtained for relocation of the Union Pacific Railroad trackage, for the lock and upstream approach channel, and for disposal areas.

Views of States and Non-Federal Interests.—The Oregon Department of Fish and Wildlife is concerned about impacts of the project on fish passage. The State of Washington Department of Game is concerned about possible impacts on fish passage and wildlife losses associated with use of Pierce and Ives Islands as disposal sites. It wants a bioengineering committee established to review the proposed plans.

Views of Federal and Regional Agencies.—The U.S. Environmental Protection Agency (EPA) notes that covering three-fourths of Pierce and Ives Islands, which are nesting areas for the Blue Heron and wintering areas for the Bald Eagle, with 9 feet of dredged material appears to be in conflict with Washington's shoreline management guidelines. EPA suggests using spoil for reclamation of Ross Island, which has been used as a source of sand and gravel.

The U.S. Department of the Interior objects to placement of all of the spoil material on Pierce and Ives Islands, as it could destroy the Blue Heron rookery. It suggests disposal at Ross Island, with some spoil placed on Pierce and Ives Islands to raise low areas. It also recommends no construction activities on these islands during Heron nesting period—from March 1 to June 25.

Status of Final Environmental Impact Statement.—The Final Environmental Impact Statement was filed with the U.S. Environmental Protection Agency on March 20, 1981.

Project Cost.—$177,000,000 (all Federal).

Benefit/Cost Ratio.—1.35.

Remarks.—The existing lock at Bonneville Dam, completed in January of 1938, was the first of eight locks constructed on the Columbia-Snake Inland Waterway System. The existing lock, immediately adjacent to the original powerhouse on the Oregon shore, is 76 feet wide and 500 feet long, making it the smallest in the system. Hazardous conditions exist at both approaches to the lock, Commercial tows with three or more standard-size barges must be broken up to pass through the lock, and this doubles or triples the time-in-system, compared to the other existing locks upstream.

Because it is the first lock in the system, Bonneville handles more commercial shipping than any other lock upstream. Based on current commodity projections, the existing lock capacity of 13 million tons with present delays, will be reached in 1988. Once this level is reached, the entire waterways system capacity will be constrained. With a new, standard-sized lock similar to the upstream facilities, the new Bonneville lock capacity would be adequate through the year 2040. The plan recommended in the feasibility report would provide for a new high head, single-lift lock on the Oregon shore, south of the existing lock. The new lock would be 86 feet wide, 675 feet long, and 15 feet deep and would correspond to the existing locks upstream. The downstream approach would be excavated through existing project grounds, and protective guidewalls would be constructed. Guidewalls would also be constructed along both sides of the upstream new lock entrance to assist traffic entering and leaving the lock. Construction of the new lock would permit an increase in the commercial shipping capacity at Bonneville from 13 million tons to 30 million tons annually. With the new lock, the average time-in-system in 1988 would decrease from 12.7 hours with the current lock and use of swtichboats, to 1.9 hours.

In light of the comments made by various Federal and State agencies on the project, the Committee has added a number of provisions to the authorizing language. Dredged material from the project is to be disposed of at Ross Island to the extent necessary to prevent damage to the Blue Heron rookery on Pierce and Ives Islands. No construction may take place on Pierce and Ives Islands during the heron nesting period. The Secretary is directed to establish a bioengineering committee to review plans for the project, recommend measures to minimize adverse affects of the project, and develop a mitigation plan for the project. This bioengineering committee would include representatives of the Corps of Engineers, the contractor for construction of the project, and appropriate State and Federal agencies.

Subsection (b) of Section 201 makes inapplicable any provision in any of the reports designated in Title II which recommend that a State contribute in cash 5 percent of the construction costs allocated to non-vendible project purposes and 10 percent of the costs allocated to vendible project purposes. Such contributions were included in some Corps of Engineers reports on water resources projects prepared during the preceding Administration. The Committee has adopted a cost sharing and financing policy for locks and dams which is set forth in Section 202. Section 201(b) is designated to remove any doubt as to whether the recommendations for 5 and 10 percent cash contributions contained in some Corps reports are still applicable.

Section 202

This section provides that one-third of the cost of the general navigation features of the projects authorized in Title II shall be paid only from amounts appropriated from the Inland Waterways Trust Fund. Two-thirds of the costs shall be paid only from amounts appropriated from the general fund of the Treasury. The general navigation features of inland waterway projects include channels, locks, dams, and turning basins, as well as other features related to the functioning of the projects for the purpose of serving general navigation needs. They do not include wharves, piers, docks, dredging of slips, and the like. In short, they include those features which have traditionally been a Federal responsibility, including lands for dredged material disposal.

Construction includes planning, design, engineering, surveying, the acquisition of all lands, easements and rights-of-way necessary for the project, including lands for the disposal of dredged material, and relocations, except for relocations of those facilities which may only be built under a permit issued pursuant to section 10 of the Act of March 3, 1899, as described in subsection (b) of Section 202.

Under subsection (b), the costs of relocating utilities subject to the permitting requirements of the Act of March 3, 1899, are shared in much the same fashion as in the case of ports under Title I. Of the two-thirds of the project cost funded from the general fund of the Treasury, in the case of these relocations one-half of this amount is paid by the utility owner. Of the one-third of the project cost funded out of the Trust Fund, one-half of this amount is paid by the utility owner. The result is that the utility owner pays one-half and the other half is paid one-third from the Trust Fund and two-thirds from the general fund of the Treasury.

The Inland Waterways Trust Fund was established by the Inland Waterways Revenue Act of 1978 (Public Law 95-502). That Act imposed a tax on fuel used by vessels in commercial waterway transportation on designated segments of the inland waterway system. These segments were those on which Federal funds had been expended for construction, operation and maintenance in the interests of navigation. The tax, which represented a significant change in Federal policy with regard to navigation improvements, was imposed in gradually increasing increments. For fiscal year 1981, it was four cents a gallon, and for fiscal years 1982 and 1983, six cents a gallon. During fiscal years 1984 and 1985 it is eight cents a gallon, and it becomes ten cents a gallon for fiscal year 1986 and thereafter. Amounts equivalent to the revenues received from this tax are transferred quarterly to the Inland Waterways Trust Fund. Amounts in the Trust Fund are available, as provided in Appropriation Acts, for making construction and rehabilitation expenditures for navigation on the inland and intracoastal waterways which are designated for purposes of the imposition of the tax. No amount may be appropriated out of the Trust Fund unless the law authorizing the expenditure for which the amount is appropriated specifically provides that the appropriation is to be made out of the Trust Fund. Section 202 does this.

The balance in the Trust Fund, as of September 30, 1983, was approximately $92,100,000. Anticipated revenues are $47,000,000 per year in Fiscal Years 1984 and 1985, $65,000,000 in Fiscal Year 1986, and rising to $80,000,000 in Fiscal Year 1988.

The monies in the Trust Fund are paid by the users of the inland waterway system—the commercial barge operators, their customers, and the consumers of the goods and services produced by these customers. Under Section 202, one-third of the cost of construction of the improvements authorized in Title II is paid by the users, which amounts to a non-Federal cost-sharing requirement of one-third. The Committee considers this a substantial amount, both in view of past policies and in view of the fact that inland waterway improvements do not simply serve the barge operators and owners and their customers; the improvements serve the population at large—the entire Nation—which is why they have always been regarded as appropriately financed from the general fund of the Treasury.

Subsection (c) of Section 202 provides that any Federal responsibility with respect to a project authorized by Title II which is not provided for in subsection (a) or (b) shall be paid only from amounts appropriated from the general fund of the Treasury. This is to prevent a narrow interpretation of Section 202 designed to result in a requirement for additional cost sharing by non-Federal interests with regard to a project authorized in Title II. Locks and dams do not provide localized benefits. Rather, they contribute to the overall efficiency of a national navigation system. For this reason, all costs are appropriately paid from the general fund of the Treasury and the Trust Fund.

SECTION 203

This section authorizes to be appropriated, for fiscal year 1984 and succeeding fiscal years, such sums as may be necessary from the general fund of the Treasury and the Inland Waterways Trust Fund to pay the costs of carrying out Title II.

TITLE III

FLOOD CONTROL

SECTION 301

Section 301(a) authorizes the construction of 72 projects for the control of destructive floodwaters. A description of these projects follows:

QUINCY COASTAL STREAMS, TOWN BROOK, MASS.

Location.—Town Brook is located on the south side of Massachusetts Bay along the eastern shore of Massachusetts in the city of Quincy, about 7 miles south of Boston.

Authority for Report.—House Public Works Committee resolution adopted December 2, 1970.

Description of Recommended Plan.—The recommended plan consists of a 12-foot diameter relief tunnel, 4,060 feet in length, along the middle reach of Town Brook in the central section of Quincy; modification of Old Quincy Reservoir Dam in northwestern Braintree; and construction of a levee along the north shore of the reservoir.

Structural features of the plan will include a new spillway and outlet structure at existing Old Quincy Reservoir: a 12-foot diameter, 4,060-foot-long, concrete lined tunnel, at least 130 feet below ground surface; larger culverts downstream of relief tunnel outlet under Southern Artery; and an earth levee 1,750 feet long along the north shore of Old Quincy Reservoir.

Nonstructural features of the plan will include flooding easements to be obtained in the wetland to insure that encroachment will not take place, improved control of the existing Old Quincy Reservoir to provide more flood control storage, and implementation of a flood warning and evacuation plan to protect against events which exceed the capacity of the structural measures.

Environmental features of the plan will include the acquisition of easements on approximately 5 acres of coastal wetlands.

Views of States and Non-Federal Interests.—The Commonwealth of Massachusetts opposed the shorter relief tunnel recommended by the Board of Engineers for Rivers and Harbors, because the shorter tunnnel would cause the loss of about 5 acres of coastal wetlands. In response to such objections, the Chief of Engineers modified the Board of Engineers' recommendations to include the longer tunnel recommended by the Division Engineer. The town of Braintree and the city of Quincy strongly supported the recommended plan. The Metropolitan District Commission supported the plan and indicated its willingness to provide the necessary items of non-Federal participation.

Views of Federal and Regional Agencies.—The Department of the Interior and the Environmental Protection Agency identified significant impacts associated with plan recommended by the Board of Engineers and stated that the loss of 5 acres of wetlands associated with the shorter tunnel alignment would require mitigation.

Status of Environmental Impact Statement.—The Division Engineer, New England Division, determined that the recommended project would not have any significant impacts on the quality of the human environment which would require the preparation of an Environmental Impact Statement.

Project Costs (estimated at October 1982 price levels):

Federal: $25,100,000.[1]

Non-Federal: $6,325,000.[1]

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[1] These costs include $6,105,000 to be reimbursed by non-Federal interests to the United States pursuant to Section 302. Non-Federal costs to insure the integrity of Old Quincy Dam are not included in these costs.

Benefit/Cost Ratio.—(7⅞ percent interest rate and 50-year economic life): 1.17.

Non-Federal Responsibilities.—Non-Federal interest will be required to provide all lands, easements, rights-of-way, and relocations required for the project. Non-Federal interests will also be responsible for improvements to insure the structural integrity of the Old Quincy Dam prior to implementation of the Federal project. In addition, Non-Federal interests will be required to assure maintainance and repair during the useful life of the works as required to serve the project's intended purpose.

Remarks.—The Committee notes that for environmental reasons the Chief of Engineers has recommended that the longer 4,060-foot relief tunnel recommended by the Division Engineer should be constructed, rather than the less expensive but more environmentally damaging 3,520-foot tunnel recommended by the Board of Engineers. The Committee concurs in the judgment of the Chief of Engineers in this regard.

ROUGHANS POINT, REVERE, MASS.

Locations.—Revere is a coastal community immediately north of Boston and Winthrop, Massachusetts.

Authority for Report.—Senate Public Works Committee resolution adopted September 12, 1969.

Description of Recommended Plan.—The recommended plan involves a wave dissipating rugged rock berm, sloping seaward 1 vertical on 3 horizontal, along the Roughans Point shore. Additional features will include interior drainage facilities and a new pumping station with an auxiliary power source. Two road intersections will also be raised to prevent backwater flooding. This plan will provide 500-year protection to over 300 structures in the flood plain. The plan will prevent 97 percent of the potential damages at an estimated investment of $12.4 million. Specific physical data on the project are as follows:

Level of Protection.—500-year.
Structures Protected.—309.
Losses Prevented.—97 percent.
Length.—4,020 feet.

Height.—17 feet.
Area Displaced.—5 acres.
Interior Drainage.—4,460 feet.
Pumping Station.—50 cubic feet per second.

Views of States and Non-Federal Interests.—The recommended plan has strong local endorsement. The non-Federal sponsors, the Commonwealth of Massachusetts and the City of Revere, have indicated their willingness to provide the necessary items of non-Federal participation.

Views of Federal and Regional Agencies.—No Federal or Regional agency has objected to the recommended plan.

Status of Environmental Impact Statement.—The Division Engineer, New Engineer, New England Division, determined that the recommended project would not have any significant impacts on the quality of the human environment which would require the preparation of an Environmental Impact Statement.

Project Costs (estimated at October 1982 price levels):
Federal: $10,400,000.[1]
Non-Federal: $3,400,000.[1]

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[1] These costs include $2,040,000 to be reimbursed by non-Federal interests to the United States pursuant to Section 302.

Benefit/Cost Ratio (7⅞ percent interest rate and 50-year economic life): 1.12.

Non-Federal Responsibilities: Non-Federal interests will be required to provide lands, easements, rights-of-way, and relocations necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

CAZENOVIA CREEK, N.Y.

Location.—Cazenovia Creek, a large tributary of the Buffalo River, drains 138 square miles of central Erie County, New York, and is 39 miles in length. The immediate project area is located approximately one mile upstream of Union Road in the town of West Seneca, New York.

Authority for Report.—House Public Works Committee resolutions adopted June 13, 1956, and June 14, 1972, and Senate Public Works Committee resolution adopted July 10, 1961.

Description of Recommended Plan.—Flooding is the paramount water-related problem in the Cazenovia Creek Basin. Damaging flooding along the Creek generally occurs during late winter and early spring, when major runoff from snowmelt and rainfall on frozen ground frequently combines with ice jamming. Major economic losses and direct threats to the life, health and safety of the area residents occur as a result of the flooding.

The recommended plan, an ice retention structure, consists of a low concrete dam to form an 11-acre stilling pool with a depth of approximately 10 feet and an ice retaining boom to float on the pool. The pool will serve to still water flowing into it and to promote the formation of ice in order to prevent ice flows from moving downstream. Flood damages in the lower reaches of the Creek due to ice jams will be reduced by approximately 70 percent.

Physical Data on Project Features.—

Approximately 95 acres of land will be required for project construction.

Nonstructural features of the plan will include floodplain management along the main stem, east and west branches, and Tannery Brook, in conjunction with flood insurance, to prevent most damages to future development.

Views of States and Non-Federal Interests.—The New York State Department of Environmental Conservation has indicated its willingness to provide the necessary items of non-Federal participation. The City of Buffalo and Town of West Seneca support the project.

Views of Federal and Regional Agencies.—The Department of the Interior favors the recommended plan. It would like to see the project built to serve as link in a streamside trail system. The Department of Agriculture, Department of Health, Education and Welfare, Department of Housing and Urban Development, and the Environmental Protection Agency all expressed support and had no objections to the project's construction.

Status of Environmental Impact Statement.—The Final Environmental Impact Statement was filed with the Environmental Protection Agency on May 1, 1979.

Project Costs (estimated at October 1982 price levels):

Federal: $1,800,000.[1]

Non-Federal: $571,000.[1]

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[1] These costs include $88,000 to be reimbursed by non-Federal interests to the United States pursuant to Section 302.

Benefit/Cost Ratio (7⅞ percent interest rate and 100-year economic life): 1.41.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way, and relocations necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

Remarks.—The Committee has included a provision that the project shall include features necessary to enable it to serve as part of a streamside trail system if the Secretary determines such features are compatible with the project purposes.

MAMARONECK, SHELDRAKE AND BYRAM RIVERS, N.Y. AND CONN.

Location.—The recommended project will alleviate recurrent flooding problems along the Mamaroneck and Sheldrake Rivers in the Village and Town of Mamaroneck, New York, and along the Byram River at Port Chester, New York, and Greenwich, Connecticut. These communities are all located immediately northeast of New York City.

Authority for Report.—Senate Public Works Committee resolution adopted September 14, 1955, and November 14, 1955, and House Public Works Committee resolution adopted June 13, 1956.

Description of Recommended Plan.—The recommended plan consists of constructing channel modifications levees, floodwalls, bridge replacements, tunnel diversion and interior drainge of facilities along the Mamaroneck and Sheldrake Rivers to provide flood protection in the Village of Mamaroneck. Channel modification, levees, floodwalls and interior drainage facilities on the Byram River will protect parts of Greenwich, Connecticut and Port Chester, New York. While the plan recommended by the District and Division Engineers included the construction of flood control improvements in the Town of Mamaroneck, the Chief of Engineers determined that those improvements be deleted from the recommended plan as a result of changes in Federal flood control policies.

PHYSICAL DATA ON PROJECT FEATURES—VILLAGE OF MAMARONECK, N.Y.

	In feet	
	Mamaroneck River	Sheldrake River
Structural Features:		
(1) Channelization	10,000	2,700
(2) Levees		1,000
(3) Floodwalls	3,700	1,700
(4) Bridge replacements	4	
(5) Tunnel diversion		3,000

Environmental Features

(1) Pool and riffle low flow channel.
(2) Small log and rock dams.
(3) Beautification and tree planting program.
(4) Erosion and sedimentation control measures.
Port Chester, N.Y. and Byram River.

Structural Features

(1) Channelization 2,700 feet.
(2) Levees 3,400 feet.
(3) Floodwalls 1,300 feet.
(4) Pumping Stations 2 Stations.

Non-Structural Features

(1) Floodproofing 1 Structure.
(2) Acquisitions 1 Structure.

Environmental Features

(1) Erosion and sedimentation control measures.
(2) Excavation of only one bank, where possible.
(3) Pool and riffle low flow channel.
(4) Beautification and tree planting program.

Views of States and Non-Federal Interests.—The State of New York strongly opposed deletion of that portion of the proposed plan which included improvements for flood control in the Town of Mamaroneck. The State of New York also urged the Congress to authorize the plan originally recommended by the New York District

Engineer in his feasibility report dated October 1977. The State of Connecticut did not oppose the report. The Village of Mamaroneck and the New York State Department of Environmental Conservation affirmed their interest in the project, their willingness and ability to cooperate with the Federal government in the implementation of the flood control project, and their intention to provide the necessary items of non-Federal participation.

The State of Connecticut Department of Environmental Protection and Town of Greenwich affirmed their support for the Byram River portion of the project in the Town of Greenwich.

The Village of Port Chester, New York and the New York State Department of Environmental Conservation, respectively, affirmed their support for the Byram River portion of the Project.

Views of Federal and Regional Agencies.—The Department of the Interior and the Environmental Protection Agency stated they did not object to the recommended plan. The Federal Highway Administration indicated that its primary concern involved possible scouring of the modified channel bottoms, particularly at the modified and replaced bridges crossing the Mamaroneck and Sheldrake Rivers and at the West Putnam Avenue Bridges crossing the Byram River. The Federal Highway Administration suggested a sediment transport study of the Mamaroneck, Sheldrake and Byram Rivers to evaluate the environmental impacts of the proposed channel improvements. Measures for sediment and erosion control were considered in the feasibility report and should be developed further during preconstruction planning.

Status of Environmental Impact Statement.—The Final Environmental Impact Statement was filed with the Environmental Protection Agency on April 3, 1981.

Project Costs (estimated at October 1982 price levels):

Federal: $45,600,000.

Non-Federal: $15,200,000.

Benefit/Cost Ratio (7⅞ percent interest rate and 50-year economic life): 1.03.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way, and relocations necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

Remarks.—The Committee has included the flood protection measures for the Town of Mamaroneck which were recommended by the District and Division Engineers, but deleted from the recommended plan in the reports of the Board of Engineers for Rivers and Harbors and the Chief of Engineers.

In its report, the Board noted that Engineering Regulation 1165-2-21, "Flood Damage Reduction Measures in Urban Areas," published as a final rule in the May 8, 1978, *Federal Register*, specifies criteria to distinguish between improvements to be accomplished by the Corps of Engineers under its flood control authorities and storm sewer system improvements to be accomplished by local interests. One of the criteria for addressing water damage problems under the Corps' flood control authorities is that the 10-year flood event must equal or exceed a discharge of 800 cubic feet per second. Thus, although the Board found that the proposed improvements for the Town of Mamaroneck would be an economically and technically feasible solution to the flood problem, it found that existing Corps policy dictated that those improvements should not be accomplished under the Corps' flood control authorities and should be deleted from the overall plan.

In Section 1159 of the bill, the Committee has directed that in the preparation of feasibility reports for flood control projects in urban areas the Corps shall consider and evaluate measures to reduce or eliminate damages from flooding without regard to frequency of flooding or the amount of runoff. Restoring the flood protection measures for the Town of Mamaroneck recommended by the District and Division Engineers will make the authorization for this project consistent with the new policy established by Section 1159.

RAHWAY RIVER AND VAN WINKLES BROOK, N.J.

Location.—In the Townships of Springfield and Union, Union County, in northeastern New Jersey, approximately 8 miles southwest of the City of Newark, New Jersey.

Authority for Report.—Senate Public Works Committee resolution adopted November 25, 1969, and the House Public Works Committee resolution dated December 11, 1969.

Description of Recommended Plan.—Recurrent flooding has occurred along the Rahway River and Van Winkles Brook in Springfield and Union Townships. The flood of record, in August of 1973, caused approximately $2.5 million damages at March 1974 prices.

The recommended plan consists of channel excavation, construction of levees, floodwalls, a ponding area, and alteration of bridges.

Specific project features include: one Levee, 6,300 feet long; one Floodwall, 300 feet long; channelization of 19,200 feet of channel; alteration of 7 bridges; raising 1,200 feet of road; raising 1,600 feet of railway; ponding for interior drainage; 64.3 acres of permanent easements; and 58.7 acres of temporary easements.

Views of States and Non-Federal Interests.—The State of New Jersey has stated that it has no objection to the recommended plan and has expressed its belief that the Corps of Engineers has committed itself to making this project as compatible with environmental values as possible.

Views of Federal and Regional Agencies.—The Department of the Interior expressed concern over the plan's impacts on potential archeological resources and groundwater resources in the project area. The Environmental Protection Agency expressed concern over turbidity—producing construction and loss of a small natural park. The Corps agreed to address these concerns further during preconstruction planning.

Status of Environmental Impact Statement.—The Final Environmental Impact Statement was filed with the Council on Environmental Quality on November 27, 1978.

Project Costs (estimated at October 1982 price levels):

Federal: $12,300,000.

Non-Federal: $4,100,000.

Benefit/Cost Ratio (7⅞ percent interest rate and 50-year economic life): 1.50.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way, (including lands needed for borrow and disposal areas), and relocations necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

ROBINSON'S BRANCH—RAHWAY RIVER, N.J.

Location.—The City of Rahway and the Townships of Clark and Scotch Plains, Union County, are in northeastern New Jersey, approximately 10 miles southwest of the City of Newark.

Authority for Report.—Senate Public Works Committee resolution adopted November 25, 1969, and House Public Works Committee resolution adopted December 11, 1969.

Description of Recommended Plan.—The project area has experienced recurrent fluvial flooding along the Robinson's Branch and Pumpkin Patch Brook in the Townships of Clark and Scotch Plains, and a combination of fluvial and tidal flooding along lower Robinson's Branch and the Rahway River in the City of Rahway. The last major flood, caused by Hurricane Doria in August 1973, resulted in approximately $1.1 million damages at December 1973 prices.

The recommended plan for Upper Robinson's Branch (Clark and Scotch Plains) consists of channel improvements extending into Pumpkin Patch Brook, levees and floodwalls.

The recommended plan for Lower Robinson's Branch (City of Rahway) consists of channel improvements, a concrete flume, levees, floodwalls and ponding areas.

Specific project features will include:

UPPER ROBINSON'S BRANCH

	Robinson's Branch	Pumpkin Patch Brook	Lower Robinson's Branch
Levees (feet)	700		6,680
Flume (feet)	750	2,300	960
Floodwall (feet)	600		400
Channelization (feet)	6,000	4,900	4,750
Number of bridges to be altered		1	

Views of States and Non-Federal Interests.—The State of New Jersey has expressed its support for the recommended plan and has expressed its belief that the Corps has committed itself to making this project as compatible with environmental values as possible.

Views of Federal and Regional Agencies.—The Department of the Interior stated it has no objection to the Chief of Engineers' report, provided mitigation measures to reduce and/or compensate for loss of vegetation and fish and wildlife habitat are included in the final construction plans and contractural agreements. The Environmental Protection Agency expressed concern over possible turbidity caused by construction activities and recommended the use of a non-structural plan for the project. The Corps has agreed to further address these concerns of the Department of the Interior and the Environmental Protection Agency during preconstruction planning.

Status of Environmental Impact Statement.—The Final Environmental Impact Statement was filed with the Environmental Protection Agency on December 15, 1978.

Project Costs (estimated at October 1982 price levels):

Federal: $13,500,000.

Non-Federal: $4,500,000.

Benefit/Cost Ratio (7⅞ percent interest rate and 50-year economic life): 1.10.

Non-Federal Responsibilities.—The State of New Jersey will be required to provide lands, easements, rights-of-way and relocations of structures and utilities necessary for the project's construction. The State will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

GREEN BROOK SUB-BASIN, RARITAN RIVER BASIN, N.J.

Location.—In Somerset, Middlesex, and Union Counties, in north central New Jersey, approximately 15 miles southwest of the City of Newark.

Authority for Report.—Senate Public Works Committee resolutions adopted September 14, 1955, and July 10, 1972.

Description of Recommended Plan Recurrent flooding has occurred along the Raritan River, Green Brook and tributaries thereto in the Counties of Somerset, Middlesex, and Union, New Jersey. The most recent major floods, in August 1971 and August 1973, caused damages estimated at $94,600,000 and $81,200,000 respectively, at October 1982 prices. Six deaths were attributed to the flood of August 1973. Alleviation of the present flooding problem will promote the opportunity to revitalize the central business district in several of the communities. The acquisition of lands for the flood control project will also provide preservation of open space with potential for passive recreation opportunities.

The recommended plan consists of constructing levees, floodwalls, and pumping stations, realigning small portions of some streams and replacing some bridges to provide flood protection for the lower Green Brook Sub-basin against a 500-year frequency flood.

Views of States and Non-Federal Interests.—The State of New Jersey indicated that the recommended plan would be acceptable and that the State would be willing to provide the necessary items of non-Federal participation. However, the State also expressed a preference or plans which would also provide protection to the upper Green Brook Sub-basin and along the Stony Brook tributary.

Views of Federal and Regional Agencies.—The Department of the Interior generally concurred in the recommended plan, provided that further studies of fish and wildlife resources are conducted. The Environmental Protection Agency also concurred in the recommended plan.

Status of Environmental Impact Staement.—The Final Impact Environmental Statement was filed with the Environmental Protection Agency on June 12, 1981.

Project Costs (estimated at October 1982 price levels):

Federal: $155,900,000.[1]

Non-Federal: $50,500,000.[1]

[1] These costs include $4,400,000 to be reimbursed by non-Federal interests to the United States pursuant to Section 302.

Benefit/Cost Ratio of Recommended Plan. (7⅞ percent interest rate and 100-year economic life): 1.30.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements and rights-of-way, including borrow, ponding and disposal areas, and to provide relocations and alternations of structures and utilities, as necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

Remarks.—The Committee notes that the State of New Jersey, as the local cooperating agency, has expressed its preference for a plan which would also provide protection to the Upper Basin communities. The Green Brook Flood Control Commission, composed of representatives from 11 towns and 3 counties also supports that position. The report of the New York District Engineer, dated August 1980, described six alternative detailed plans which were developed by the Corps of Engineers in its analysis of the recommended plan. One of these plans, Plan A, included protection for all the major flood problem areas in the Green Brook Basin, including the Upper Green Brook Basin and Stony Brook. The Committee feels that Plan A, acknowledged by the District Engineer to be the most comprehensive of the detailed plans for the Green Brook Sub-basin studied by the Corps, is the most appropriate plan. Therefore, the Committee has directed that Plan A be implemented.

JAMES RIVER BASIN, VA.

Location.—On the James River floodplain within the city limits of Richmond, Virginia.

Authority for Report Phase I General Design Memorandum: Section 101 of the Water Resources Development Act of 1976.

Description of Recommended Plan.—The City of Richmond has experienced two major floods in recent history. In August of 1969, the remnants of Hurricane Camille passed over Virginia causing severe flooding in the city, and in June of 1972, Hurricane Agnes caused flooding about 8 feet higher than that experienced in 1969. These two floods alone resulted in over $82 million in damage in less than 3 years. Based on existing development in Richmond, the recurring flood damages in the study area are estimated to be $4,872,000 at October 1982 price levels. The damages result from inundation of the industrial-commercial development located on the floodplain as well as the city's wastewater treatment plant. The recommended project would prevent $3,838,000 in damages in the base year (1985) at October 1982 price levels.

The recommended plan consists of a system of floodwalls and levees on both sides of the James River in the downtown areas, which will protect against the Standard Project Flood—a flood 6.4 feet higher than that which occurred in June of 1972. On the north side of the river 1,840 feet of concrete cantilever and 2,280 feet of concrete gravity floodwalls will be required. Construction on the south side will consist of 9,600 feet of earthen levees, 750 feet of concrete cantilever and 570 feet inverted concrete tee wall. In all, 21 closures and 3 pumping stations will be required.

Views of States and Non-Federal Interests.—The State of Virginia endorsed the proposal and also recommended that flood protection be provided for the Municipal Wastewater Treatment Facility in Richmond.

Views of Federal and Regional Agencies.—The Environmental Protection Agency favored a plan which provides flood protection to the Municipal Wastewater Treatment Facility. The Department of the Interior has no objections to the recommended plan.

Status of Environmental Impact Statement.—The Final Environmental Impact Statement for the Feasibility Report was filed with the Council on Environmental Quality on October 6, 1976. The Division Engineer's Phase I Report includes a Supplemental Information Report, which was filed with the Environmental Protection Agency on July 24, 1981.

Project Costs (estimated at October 1982 price levels):

Federal: $92,960,000.[1]

Non-Federal: $27,625,000.[1]

[1] These costs include $10,085,000 to be reimbursed by non-Federal interests to the United States pursuant to Section 302.

Benefit/Cost Ratio (7⅞ percent interest rate and 100-year economic life): 1.05.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way, relocations alternations, and borrow and disposal areas necessary for the project's construction.

The City will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

Remarks.—The Norfolk District Engineer, in his report dated September 1980, analyzed three detailed plans for flood protection on the James River. One of these plans, Plan X, included protection for the Richmond Municipal Wastewater treatment plant, which would remain susceptable to flooding under the other two plans. Although the District Engineer determined that Plan X would be economically justified, it was not the most economically feasible of the plans considered and was not recommended.

Flooding of the treatment plant will result in the discharge of raw sewage into the James River and will create a threat to human health and wildlife. The Corps has estimated that, if the plant were left unprotected, it could be put out of service for a period of 20 to 40 days by a flood approximating the 100-year event. The Committee feels that the added expense of implementing Plan X is more than justified by the environmental benefits it will provide; therefore, the Committee plan included the flood protection for the wastewater treatment plant as part of the project.

OATES CREEK, GA.

Location.—In the northern portion of Richmond County, Georgia.

Authority for Report.—Senate Public Works Committee resolution adopted January 16, 1966, and House Public Works Committee resolution adopted May 5, 1966.

Description of Recommended Plan.—The recommended plan, which will provide flood protection for the Oates Creek watershed in Augusta, Georgia, will reduce present and future flood damages in the area protected by 97.8 percent. The recommended plan includes construction of 12,303 feet of grass-lined and concrete-lined channel modifications, construction of a 6-foot high, 1,000 foot-long levee, 15 bridge and culvert modifications, and acquisition of lands, easements, and rights-of-way.

Views of States and Non-Federal Interests.—The State of Georgia found, as a result of its environmental review process, that the recommended plan would be consistent with those social, economic, physical goals, policies, plans and programs with which the State is concerned. The Richmond County Board of Commissioners expressed its intent to financially participate in the construction and implementation of the recommended project.

Views of Federal and Regional Agencies.—No Federal or regional agency expressed an objection to the recommended plan. However, the Department of the Interior suggested that the proposed plan consider the potential for pollution of shallow groundwater bodies and surface water bodies that might result from construction of the project. The Department of Agriculture suggested the planting of suitable food and cover species along the channel to provide wildlife habitat and to improve its general appearance.

Status of Environmental Impact Statement.—The Final Environmental Impact Statement was filed with the Environmental Protection Agency on August 28, 1981.

Project Costs (estimated at October 1982 price levels):

Federal: $8,800,000.

Non-Federal: $3,772,000.

Benefit-Cost Ratio (7⅞ percent interest rate and 50-year economic life): 2.00.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way and relocations, including those needed for suitable borrow and disposal areas, necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

Remarks: In view of the concerns expressed by Federal agencies, the Committee has included the requirements that the project include measures determined by the Secretary to be necessary and appropriate to minimize pollution of shallow ground and surface waters which may result from construction of the project, and the planting of vegetation along the channel for purposes of enhancing wildlife habitat.

VILLAGE CREEK, ALA.

Location.—Village Creek originates in eastern Jefferson County, Alabama and flows westerly through the City of Birmingham to join the Locust Fork of the Black Warrior River.

Authority for Report.—Senate Public Works Committee Resolution adopted March 16, 1971.

Description of Recommended Plan.—As the suburbs of Birmingham, Alabama have developed, flooding has become a serious problem in the older residential sections of the city. Other problems of the area identified during the planning process include substandard flood plain housing; high density housing; lack of recreation areas, and poor instream water quality.

The plan of improvement recommended by the Chief of Engineers includes the evacuation of 574 residential structures in the flood plain; the excavation of a 2.2 mile channel segment, to include modifications to four bridges and two waterlines, and the demolition of one unused bridge; the placement of emergency floodwarning devices; the creation of open space for recreation; and flood plain regulation. The recommended plan will eliminate 68 percent of the average annual damage due to flooding in the area. Specific features of the recommended plan include the following:

Structural

Construction of 2.2 miles of excavated channel, (100,000 cu. yds.), with a resultant 15-year level of protection.

Replacement of 4 bridges, demolition of one unused bridge, and relocation of two waterlines.

Non-structural

Acquisition and demolition of 574 structures and acquisition of 177 acres of land supporting the structures.

Seek to move from emergency to regular flood insurance program.

Flood plain areas to be zoned to prohibit future non-compatible development.

Installation of 3 floodwarning devices.

Recreation

177 acres of evacuated land are to be used for open space recreation.

Views of States and Non-Federal Interests.—The State of Alabama generally supports the project, but stated it would like as many nonstructural measures to be included in the plan as possible. The Chief of Engineers' report recommends that the nonstructural component of the plan be adjusted as necessary during preconstruction planning to enhance the project's economic feasibility. The City of Birmingham was actively involved in developing the recommended plan and has consistently indicated its support for the plan.

Views of Federal and Regional Agencies.—The recommended plan received the general support of all Federal agencies from whom comments were received, including the Environmental Protection Agency, the Department of the Interior, the Department of Agriculture and the Federal Emergency Management Agency.

Status of Environmental Impact Statement.—The Final Environmental Impact Statement was filed with the Environmental Protection Agency on June 10, 1982.

Project Costs (estimated at October 1982 price levels):
Federal: $20,700,000.[1]
Non-Federal: $6,525,000.[1]

[1] These costs include $1,125,000 to be reimbursed by non-Federal interests to the United States pursuant to Section 302.

Benefit/Cost Ratio (7⅞ percent interest rate and 100-year economic life): 1.30.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way, and utility and bridge relocation necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

THREEMILE CREEK, ALA.

Location.—Threemile Creek originates in the western part of Mobile, Alabama and flows easterly through the City for about 14 miles to enter the Mobile River.

Authority for Report.—House Public Works Committee resolutions adopted October 12, 1972, and April 11, 1974.

Description of Recommended Plan.—Within a 13-month period between April 1980 and May 1981 three major floods occurred on Threemile Creek, causing almost $40,000,000 in damages to homes, businesses, roads, bridges and utilities. Consequently, the Corps of Engineers initiated studies under its Continuing Authority Program. However, during the study it was determined that the problem was beyond the scope of Section 205 of the Flood Control Act of 1948, and the study was changed to an interim survey provided in response to the authorities shown above.

The recommended plan includes enlarging Threemile Creek for a distance of 5.6 miles. The modified bottom width will vary from 148 feet at the lower end to 70 feet in the upper segment and construction will require the removal of 42 houses and 2 businesses from the channel right-of-way. The plan will require the modification of 2 road bridges and 3 railroad bridges and the replacement of 3 road bridges. Other relocations will include sewer lines and other pipelines, power lines, and fences. In addition, a number of recreational facilities will be provided.

Views of States and Non-Federal Interests.—No states or non-Federal interests have expressed opposition to the recommended plan.

Views of Federal and Regional Agencies.—No Federal or regional agencies have expressed opposition to the recommended plan.

Status of Environmental Impact Statement.—The Draft Environmental Impact Statement was filed with the Environmental Protection Agency on June 11, 1982.

Project Costs (estimated at October 1982 price levels):

Federal: $12,100,000.

Non-Federal: $5,504,000.

Benefit/Cost Ratio (7⅞ percent interest rate and 50-year economic life): 1.40.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide 256 acres of land for channel rights-of-way and disposal areas; provide for the relocation of 42 houses and 2 businesses within project rights-of-way; make modifications to pipelines, powerlines, fences and other utilities within the project right-of-way; modify 2 bridges; and replace 3 bridges. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than due to the fault or negligence of the United States or its contractors.

Remarks.—The Committee understands that the City of Mobile is prepared to begin immediate action which will involve the removal of certain structures from the flood plain, bridge modifications, and other structural measures. However, the City is presently being effectively discouraged from proceeding with that work for fear that its action may distort the Corps' benefit-cost ratio and jeopardize the justifications for authorizing the project. It is the policy of the Committee to promote local self-help in solving flooding problems, without jeopardizing the viability of a larger Federal project and without penalizing local interests for proceeding with needed flood protection work prior to the authorization of a Federal project. Therefore, this authorization for the Threemile Creek project provides that the Secretary shall include as part of the non-Federal contribution of the project any local flood protection work carried out by non-Federal interests after January 1, 1982, and before the date of enactment of this Act. This authority applies only to those locally initiated improvements which the Chief of Engineers determines are reasonably compatible with the recommended plan. This authorization also provides that the costs and benefits resulting from such locally initiated work shall continue to be considered in determining the economic feasibility of the project. In addition, the Committee draws attention to the fact that the provisions of Section 302(g)(2) regarding credit toward the local cost share of compatible, locally constructed works apply to the Threemile Creek Project.

BUSHLEY BAYOU, LA.

Location.—The Bushley Bayou area is located in east-central Louisiana about 35 miles northeast of Alexandria, Louisiana.

Authority for Report (Phase I General Design Memorandum): Section 1(a) of the Water Resources Development Act of 1974.

Description of Recommended Plan.—The Bushley Bayou area is subject to frequent flooding caused by backwater from the Mississippi and Red Rivers and floods from the Ouachita River. Damaging backwater floods, which are generally of long duration, occur an average of twice a year. Significant flood damages occur to agricultural crops, to rural residences and other structures, and to public roads and bridges. Flooding poses a potential threat of loss of life of residents. There is also a need to preserve and protect existing fish, wildlife, and other natural resources of the area.

The recommended plan includes the acquisition of 2,113 acres of land to be used for the construction of 40 miles of levee, a 300-cubic-foot-per-second pumping plant, one large gravity drainage structure, 10 small gravity drainage structures, and 13.5 miles of channel work. Environmental features include a 20-cubic-foot-per-second pumping plant and gravity drain and a 2-way gravity drain. The right-of-way requirements for the project will be 5,623 acres, requiring the replacement or modification of 5 bridges and the relocation of 19 roads, 23 powerlines, 21 communication lines, 13 pipelines, and 2 waterlines.

The project will provide flood protection to 34,900 acres of predominantly agricultural land including 759 homes, businesses, churches, and other structures.

The provision in the recommended plan for the purchase of 1,400 acres of woodland as a public wildlife management area has been superseded by the statutory establishment of the Tensas River National Wildlife Refuge.

Views of States and Non-Federal Interests.—The Tensas Basin Levee District supports the recommended plan.

Views of Federal and Regional Agencies.—Original objections by the Department of the Interior and the Environmental Protection Agency, based on the lack of adequate fish and wildlife mitigation lands in the recommended plan, have been satisfied by the passage of Public Law 96–285, which provided for the establishment of the Tensas National Wildlife Refuge, to be administered by the Secretary of the Interior and composed of lands acquired by the Corps of Engineers and the Department of the Interior.

Status of Environmental Impact Statement.—The Final Environmental Impact Statement was filed with the Environmental Protection Agency on May 7, 1982.

Project Costs (estimated at October 1982 price levels):
Federal: $42,800,000.[1]
Non-Federal: $10,700,000.[1]

[1] These costs include $10,700,000 to be reimbursed by non-Federal interests to the United States pursuant to Section 302.

Benefit/Cost Ratio (7⅞ percent interest rate and 50-year economic life): 1.16.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way, and relocations necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

Remarks.—Section 3(d) of Public Law 96–285, the law establishing the Tensas River National Wildlife Refuge, provides that land acquisition required of the Secretary of the Army for that Refuge shall be in lieu of and in satisfaction of the mitigation land acquisition which otherwise would be required for a number of Corps of Engineers water resources projects, including the Bushley Bayou Project. Therefore, the Committee concurs in the recommendation of the Chief of Engineers, included in his supplemental report dated August 12, 1982, that the mitigation land acquisition included as a feature of the project recommendation in the original report of the Chief of Engineers not be included in the project authorization.

LOUISIANA STATE PENITENTIARY LEVEE

Location.—On the left descending bank of the Mississippi River, between river miles 294 and 310, above the Head of Passes, in West Feliciana Parish about 50 miles northwest of Baton Rouge.

Authority for Report.—Senate Public Works Committee resolution adopted September 5, 1973.

Description of Recommended Plan.—The existing non-Federal mainline Angola levee will be raised from its present height of 63 feet National Geodetic Verticle Datum (NGVD) to a maximum of 71.5 feet NGVD, to provide protection for the State Penitentiary from the project design flood, with 4 feet of freeboard. The levee will have a 10-foot crown with side slopes of 1 vertical on 5.5 horizontal on the landside and 1 vertical on 4 horizontal on the riverside. The existing gravity drainage structures will be replaced by two 6-by-6-foot concrete culverts with vertical sluice gates. Fill material will be taken from 345 acres of borrow pits, 10 feet by 285 feet by 10 miles long, parallel to the riverside of the levee. Care will be taken to avoid bottomland hardwoods and wetlands contiguous to the Charity Lake and Sugar Lake areas when digging borrow pits. Levee rights-of-way will require 632 acres of land. All rights-of-way are presently owned by the State of Louisiana.

Views of States and Non-Federal Interests.—The Louisiana Department of Corrections expressed its support of the recommended plan and its willingness to participated financially as a local sponsor for the project. The Louisiana Department of Wildlife and Fisheries concurred in the recommended plan.

Views of Federal and Regional Agencies.—The Department of the Interior objected to the requirements for local assurances to protect land as being inadequate to insure the preservation of environmental values. Other agencies support the project.

Status of Environmental Impact Statement.—The Final Environmental Impact Satatement was filed with the Environmental Protection Agency on August 13, 1982.

Project Costs (estimated at October 1982 price levels):

Federal: $20,512,000.[1]
Non-Federal: $5,418,000.[1]

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[1] These costs include $4,259,000 to be reimbursed by non-Federal interests to the United States pursuant to Section 302.

Benefit/Cost Ratio (7⅞ percent interest rate and 100-year economic life): 1.30.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way, and relocations necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

Remarks.—The Committee notes that the Department of the Interior disagreed with the Mississippi River Commission's recommendation that no Federal funds should be expended for the preservation of environmental values unless the State provides assurances that these lands will be protected for that purpose, and that the Department disagreed with the concept that habitat preservation assurances must be provided by local interests before the Corps of Engineers will take steps to minimize project-related habitat losses. Accordingly, in the interest of preserving environmental values, the Committee has directed that no acquisition of land for or actual construction of the Louisiana State Penitentiary Levee project may be commenced until the appropriate non-Federal interests shall agree to undertake measures to minimize the loss of fish and wildlife habitat lands in the project area.

SOWASHEE CREEK, MERIDIAN, MISSISSIPPI

Location.—Lauderdale County, Mississippi, in the vincinity of the City of Meridian.

Authority for Report (Phase I General Design Memorandum): Section 171 of the Water Resources Development Act of 1976, as amended.

Description of Recommended Plan.—A severe flood problem with damages to homes, businesses, public buildings, streets, and utilities exists along Sowashee Creek. The recommended plan is a joint project between the Corps of Engineers and the Soil Conservation Service (SCS). The SCS work will consist of flood water retention structures within the upstream reaches of the Sowashee Creek drainage area. Corps work will consist of about ten miles of channel modification along the downstream end of the creek.

Views of States and Non-Federal Interests.—State and local agencies have generally supported the project.

Views of Federal and Regional Agencies.—The Department of the Interior has worked closely with the Corps to develop a plan that minimizes adverse effects on fish and wildlife resources and, where appropriate, mitigates significant losses.

Status of Environmental Impact Statement.—A draft Environmental Impact Statement was completed in July of 1983. This draft is being reviewed by concerned Federal and non-Federal interests.

Project Costs (estimated at October 1982 price levels):

Federal: $10,100,000.

Non-Federal: $4,706,000.

Benefit/Cost Ratio (7⅞ percent interest rate and 100-year economic life): 2.00.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way, and relocations necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

Remarks.—Pursuant to Section 301(b), if a final report of the Chief of Engineers has not been completed before the date of enactment of the bill, the Secretary, within one year of enactment must transmit a copy of the final environmental impact statement on the Sowashee Creek project, along with his recommendations, including recommended modifications, if any, to the House Committee on Public Works and Transportation and the Senate Committee on Environment and Public Works. Except for any funds from the Environmental Protection and Mitigation Fund, no appropriation shall be made for acquisition of land for, or actual construction of, the project unless such activity is approved by resolution by the two Committees. The project authorization includes such modifications recommended by the Secretary and approved by the two Committees.

NONCONNAH CREEK, TENN. AND MISS.

Location.—The Nonconnah Creek Basin includes portions of Shelby and Fayette Counties in southwest Tennessee, and extends into DeSoto and Marshall Counties in northwest Mississippi. Approximately one-half of the City of Memphis, Tennessee is located within the drainage area.

Authority for Report (Phase I General Design Memorandum).—Section 101(a) of the Water Resources Development Act of 1976.

Description of Recommended Plan.—Structural features of the recommended plan include channel enlargement from the mouth of Nonconnah Creek to the confluence of Johns Creek (Mile 0.0 to mile 11.94), and channel clearing from there to mile 18.2 (6.26 miles of clearing). Implementation of these measures will provide flood protection from the 100-year frequency flood for the existing urban development along Nonconnah Creek in the Memphis area. About 670 acres of urban land outside the existing Nonconnah Creek channel will be required for project implementation. Four road facilities, two railroad facilities, and 59 utility facilities will require alterations or relocation.

In the formulation of structural flood control measures, it was assumed that local governing bodies would continue their participation in the National Flood Insurance Program, which includes the adoption and enforcement of land use controls on future development in flood-prone areas.

The recommended plan includes recreational features consisting of 15 miles of hike trails and 15 miles of bike trails along and within project rights-of-way from near the mouth of Nonconnah Creek upstream to the confluence of Howard Road Outfall. Other recreational facilities will include picnic units, restrooms, drinking water facilities, and a connecting footbridge to the proposed Nature area.

The recommended plan includes, as an environmental feature a nature area of approximately 47 acres containing 14 acres of wetlands and stands of cypress and bottomland hardwoods. The area is unique in that it lies within the City, surrounded by development and continuing urbanization. About four miles of trail will be constructed through the area to facilitate nature study, wildlife photography, bird watching and other forms of nonconsumptive wildlife-oriented recreation.

Views of States and Non-Federal Interests.—The Chickasaw Basin Authority has continually supported flood control in the Nonconnah Creek Basin. The Authority has passed a resolution indorsing the recommended plan and stating its intention to provide the necessary items of non-Federal participation. The State of Tennessee concurred with the findings of the Environmental Impact Statement and recommended transmittal of the plan to Congress. However, the State did indicate that the fish and wildlife mitigation measures described in the recommended plan were the minimum measures acceptable to the State to mitigate potential adverse effects of the channel work involved.

Views of Federal and Regional Agencies.—The Department of the Interior recommended that a number of fish and wildlife measures be added to the recommended plan. These additional measures included a habitat-based evaluation of project-induced fish and wildlife losses, additional mitigation as appropriate, and the implementation of a set of specific guidelines for clearing and snagging.

Status of Environmental Impact Statement.—The Final Environmental Impact Statement was filed with the Council on Environmental Quality on November 29, 1976, as part of the Interim Report Survey Study. The Final Supplement to the Environmental Impact Statement was filed with the Environmental Protection Agency on July 22, 1982.

Project Costs (estimated at October 1982 price levels):

Federal: $19,200,000.

Non-Federal: $7,200,000.

Benefit/Cost Ratio (7⅞ percent interest rate and 100-year economic life): 1.70.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way, and relocations necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

Remarks.—The Committee notes the concerns regarding the Nonconnah Creek Project raised by the Department of the Interior. Accordingly, in the interest of preserving environmental values, the Committee has directed that this project shall include an evaluation of fish and wildlife losses which may result from construction of the project and such additional measures as the Secretary deems necessary and appropriate to mitigate such losses. The Secretary will also be required to adopt and implement guidelines in connection with clearing and snagging, as the Secretary determines necessary and appropriate, to minimize adverse effects on fish and wildlife habitat.

HORN LAKE CREEK AND TRIBUTARIES, TENNESSEE AND MISSISSIPPI

Location.—In the north-central part of DeSoto County, Mississippi, and the southwestern part of Shelby County, Tennessee.

Authority for Report (Phase I General Design Memorandum).—Section 101(a) of the Water Resources Development Act of 1976.

Description of Recommended Plan.—The water and related land resource problems and needs of the Horn Lake Creek area primarily concern the frequent flooding of urban areas and agricultural lands. In the formulation of the recommended plan consideration was also given to the problems and needs of the area relating to recreation and natural environment.

Structural features of the recommended plan include selective drift removal on 3.5 miles of lower Horn Lake Creek, 2.6 miles of channel clearing of Horn Lake Creek through the town of Horn Lake, 2.1 miles of channel clearing on Rocky Creek, and channel clearing and enlargement on 2.47 miles of Cow Pen Creek. Approximately 4 acres of developed urban land and about 73 acres of rural land will be required for construction rights-of-way. Five road facilities and 19 utility facilities will require alteration or relocation.

DeSoto County and the towns of Horn Lake and Southaven all have flood plain management programs that will reduce or eliminate future growth of damageable development in the flood plain. It was assumed that these flood plain management programs would continue in the future.

The recommended plan also includes a recreational feature consisting of 2.47 miles of hiking and biking trails along Cow Pen Creek.

Views of States and Non-Federal Interests.—During coordination of the District Engineer's draft report, letters of intent to comply with requirements of local cooperation were received from the Cities of Horn Lake and Southaven, Mississippi. DeSoto County and the DeSoto County Board of Supervisors indicated strong support for the recommended plan of improvement, but could make no commitment concerning local funding at that time. The State of Mississippi supports the recommended plan.

Views of Federal and Regional Agencies.—The Department of the Interior expressed concern about the cumulative environmental impact of the 10.7 miles of channel modifications and the clearing of 41.3 acres of bottomland hardwoods included in the recommended plan.

Status of Environmental Impact Statement.—The Final Environmental Impact Statement was filed with the Environmental Protection Agency on July 22, 1982.

Project Costs (estimated at October 1982 price levels):

Federal: $2,500,000.

Non-Federal: $1,084,000.

Benefit/Cost Ratio (7⅞ percent interest rate and 100-year economic life): 1.70.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way, and relocations necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

Remarks.—In view of the concerns expressed by the Department of the Interior regarding the cumulative impacts of the channel modifications, dredged material disposal, and bottomland hardwood clearing included in the recommended plan, the Committee has directed the Secretary to undertake a number of measures in the interest of environmental quality. The Secretary is directed to reexamine the adequacy and feasibility of the recommended measures for fish and wildlife habitat, and to reexamine upland dredged disposal alternatives. Not later than one year after the date of enactment of the bill, the Secretary must transmit to the Committee on Public Works and Transportation of the House and the Committee on Environment and Public Work of the Senate a report that of such reexamination, along with recommendations for additional measures determined to be necessary and appropriate to mitigate the adverse effects of the project on fish and wildlife habitat. Except for funds from the Environmental Protection and Mitigation Fund established in Title XI, no appropriation will be permitted for the acquisition of any interest in real property for, or the actual construction of, the Horn Lake Creek Project if that acquisition and actual construction have not been approved by resolutions of the two Committees. The Secretary is also required to adopt and implement guidelines in connection with channel clearing and drift removal for the project which the Secretary, in consultation with the Fish and Wildlife Service, determines to be necessary and appropriate to minimize adverse effects on fish and wildlife habitat.

MUSKINGUM RIVER, KILLBUCK, OHIO

Location.—On Killbuck Creek at Killbuck, Ohio, in Holmes County.

Authority for Report.—Senate Public Works Committee resolution adopted June 3, 1964.

Description of Recommended Plan.—Killbuck is vulnerable to flooding almost annually. Estimated average annual damages at Killbuck amount to $219,000, based on July 1976 price levels and conditions of development. The maximum flood of record occurred in July 1969 and was a 300-year-frequency event.

The recommended plan of improvement consists of a levee-wall about 7,000 feet in length along Killbuck Creek. Four gated openings will be required, and an interceptor sewer system and pumping facilities will be needed to handle interior drainage. About 27 acres of permanent right-of-way will be needed for the levee-wall alignment. Five structures are located within the tentative project limits and will need to be acquired. Temporary right-of-way requirements will be minimal. Recreational features will include two small parks with day-use recreation facilities. The levee, when seeded and landscaped, will provide a public green area, and landscaping will restore natural scenic beauty and help blend the levee into the present setting.

The Village of Killbuck will continue to participate in the National Flood Insurance Program.

Views of States and Non-Federal Interests.—The State of Ohio concurred in the recommended plan and stated that the plan is compatible with the existing environment.

Views of Federal and Regional Agencies.—The Department of Agriculture, the Department of Health, Education, and Welfare, the Department of Housing and Urban Development, the Department of Transportation, the Department of the Interior, and the Environmental Protection Agency had no objections to the proposed plan.

Status of Environmental Impact Statement.—The Final Environmental Impact Statement was filed with the Environmental Protection Agency on May 11, 1979.

Project Costs (estimated at October 1982 price levels):

Federal: $6,420,000.[1]

Non-Federal: $1,758,000.[1]

[1] These costs include $1,186,000 to be reimbursed by non-Federal interests to the United States pursuant to Section 302.

Benefit/Cost Ratio (7⅞ percent interest rate and 50-year economic life): 1.50.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way, relocations and a portion of recreation costs, as necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

Remarks.—In reviewing the recommended plan for Killbuck, Ohio, the Environmental Protection Agency conditioned its lack of objections to the plan on:

(1) Provision of an acceptable grass or native vegetative buffer strip between borrow areas and Shrimplin Creek and between the proposed levee and Killbuck Creek.

(2) Provision of special pollution abatement measures.

(3) Acquisition of a National Pollutant Discharge Elimination System permit for the discharge of interior drainage.

The Committee directs the Corps to fully consider the first two conditions during preconstruction planning. The acquisition of a permit for the discharge of interior drainage is provided for by Section 402 of the Federal Water Pollution Control Act.

MUSKINGUM RIVER, MANSFIELD, OHIO

Location.—On Rocky Fork and Touby Run at Mansfield, Richland County, Ohio.

Authority for Report.—Senate Public Works Committee resolution adopted June 3, 1964.

Description of Recommended Plan.—Mansfield is vulnerable to flooding almost annually. Estimated average annual damages at Mansfield amount to $429,000 based on July 1975 price levels and conditions of development.

The recommended plan of improvement consists of a channel modification along 9,340 feet of Rocky Fork and along 2,700 feet of Touby Run. Rocky Fork will be widened, with channel paving in two short reaches, and one reach will be undisturbed. Touby Run will be cleared of trees, snags, and debris. A railroad spur bridge will be replaced. About 16 acres of permanent right-of-way will be required for the project, and about 23 acres of temporary right-of-way will be needed during project implementation. A mini-park will be developed to provide day-use recreational facilities.

Generally, the channel widening for this project will be accomplished along one side, and the existing channel will be incorporated as a pilot channel for normal flows. All disturbed areas will be reseeded, and vegetative plantings will be utilized for beautification.

The City of Mansfield will continue to participate in the National Flood Insurance Program.

Views of States and Non-Federal Interests.—The State of Ohio concurred in the recommended plan. The City of Mansfield stated that it expected to provide the necessary items of non-Federal participation for the project.

Views of Federal and Regional Agencies.—The Department of Agriculture, the Department of Health, Education, and Welfare, the Department of Housing and Urban Development, the Department of Transportation, and the Department of the Interior had no objections to the recommended plan. The Environmental Protection Agency had environmental reservations regarding water quality and the Rocky Fork ecosystem. The Corps of Engineers has agreed that Environmental Protection Agency's concerns would be addressed during preconstruction planning and design.

Status of Environmental Impact Statement.—The Final Environmental Impact Statement was filed with the Environmental Protection Agency on May 11, 1979.

Project Costs (estimated at October 1982 price levels):

Federal: $3,500,000.[1]

Non-Federal: $1,152,000.[1]

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[1] These costs include $102,000 to be reimbursed by non-Federal interests to the United States pursuant to Section 302.

Benefit-Cost Ratio (7⅞ percent interest rate and 50-year economic life): 2.60.

Non-Federal Responsibilities.—The City of Mansfield will be required to provide lands, easements, rights-of-way, relocations and a portion of recreational feature costs, as necessary for the project's construction. The City will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

Remarks.—The Committee notes that the Environmental Protection Agency, in its evaluation of the recommended plan, expressed a number of objections regarding the plan's potential adverse effects upon water quality and the Rocky Fork ecoSystem. It objected to implementation of the plan unless mutual agreement between the Corps and itself could be achieved on the following five conditions:

(1) Provision of a smaller low flow (V-bottom) channel within any portion of the main channel being widened or disturbed.

(2) Provision of a number of riffle and pool areas in channel design to mitigate adverse long-term effects of major channel work.

(3) Elimination or minimization of proposed pavement areas, and utilization or natural materials such as boulders.

(4) Maintenance of a maximum amount of native stream vegetation.

(5) Utilization of disposal sites outside of the existing and modified 100-year flood plain.

The Committee directs the Corps to fully consider these conditions during preconstruction planning.

HOCKING RIVER, LOGAN, OHIO

Location.—Logan, the county seat of Hocking County is located on the Hocking River, approximately 66 miles above the mouth of the River.

Authority for Report.—House Public Works Committee resolutions adopted July 14, 1970 and December 2, 1970.

Description of Recommended Plan.—Logan is vulnerable to Hocking River flooding almost annually. Estimated average annual damages at Logan amount to $369,000, based on July 1976 price levels and conditions of development. The most recent major flood event occurred in May of 1968.

The recommended plan of improvement consists of channel modification along about 2.7 miles of the Hocking River and a levee, about 3,500 feet long, along Oldtown Creek. Two gated openings will be required in the levee, and interior drainage will be diverted downstream. About 63 acres of permanent right-of-way will be required for the project, and about 68 acres of temporary right-of-way will be required during project implementation. River access and day-use facilities will be provided on project lands. Additional recreational lands and facilities are proposed at non-Federal expense.

Channel widening generally will be accomplished from one side, leaving the existing channel bottom undisturbed. A landscape plan will provide for wildlife food and cover, and for visual improvement. Instream devices will provide fish shelter and increase habitat diversity. The City of Logan will continue to participate in the National Flood Insurance Program.

Views of States and Non-Federal Interests.—The State of Ohio strongly endorsed the proposed Logan project. The Hocking Conservancy District submitted a letter of intent to provide the necessary items of non-Federal participation for the project.

Views of Federal and Regional Agencies.—The Department of the Interior generally concurred in the recommended plan, but recommended that the mitigation features of the plan be considered an integral part of the project and be constructed concurrently with the rest of the project.

The Environmental Protection Agency stated it had no objection to the plan, but expressed concerns over the proposed dredged material disposal sites, stating that placement of dredged material in the River's floodway or in water areas should be prohibited, and that dredged material placed on upland areas should be placed in such a manner that it would not kill or significantly disturb terrestrial vegetation.

Status of Environmental Impact Statement.—The Final Environmental Impact Statement was filed with the Environmental Protection Agency on June 19, 1981.

Project Costs (estimated at October 1982 price levels):

Federal: $6,244,000.[1]

Non-Federal: $1,851,000.[1]

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[1] These costs include $862,000 to be reimbursed by non-Federal interests to the United States pursuant to Section 302.

Benefit/Cost Ratio (7⅞ percent interest rate and 50-year economic life): 1.50.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way, relocations, alterations and a portion of recreational feature costs, as necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

Remarks.—The Committee notes the environmental concerns expressed by the Environmental Protection Agency and the Department of the Interior in their evaluations of the recommended plan. Accordingly, in the interest of protecting environmental values, the Committee has directed that the Corps during preconstruciton planning shall review potential sites for the disposal of dredged material from the Logan project and shall select disposal sites determined to be necessary and appropriate to minimize adverse effects on fish and wildlife mitigation measures described in the recommended plan be implemented concurrently with other project features, where appropriate and feasible.

HOCKING RIVER, NELSONVILLE, OHIO

Location.—Nelsonville is located on the Hocking River in Athens County, Ohio, approximately 51 miles above the mouth of the Hocking River.

Authority for Report.—House Public Works Committee resolutions adopted July 14, 1970 and December 2, 1970.

Description of Recommended Plan.—Nelsonville is vulnerable to Hocking River flooding almost annually. Estimated average annual damages at Nelsonville amount to $240,000, based on July 1976 price levels and conditions of development.

The recommended plan of improvement consists of channel widening and construction of floodways along about 2.7 miles of the Hocking River. The modified channel condition will have the equivalent flow capacity of a 200-foot bottom width channel. About 90 acres of permanent right-of-way will be required for the project, and about 70 acres of temporary right-of-way will be required during project implementation. Recreation facilities will include stream access, a biking and walking trail, and day-use facilities. Additional lands and facilities are proposed to be provided at non-Federal expense.

In general, the channel will be widened from one side or separate floodways for higher flows will be constructed. Except for one short reach, the existing channel bottom will be undisturbed. A landscape plan will provide for wildlife food and cover, and for visual improvement. Instream devices will provide fish shelter and increase habitat diversity. The City of Nelsonville will continue to participate in the National Flood Insurance Program.

Views of States and Non-Federal Interests.—The State of Ohio strongly endorses the proposed Nelsonville project. The Hocking Conservancy District has stated its intent to provide the necessary items of non-Federal participation for the project.

Views of Federal and Regional Agencies.—The Department of the Interior generally concurred in the recommended plan, but recommended that the mitigation features of the plan be considered an integral part of the project and be constructed concurrently with the rest of the project.

The Environmental Protection Agency stated it had no objection to the plan, but expressed concerns over the proposed dredged material disposal sites, stating that placement of dredged material in the river's floodway or in water areas should be prohibited, and that dredged material placed on upland areas should be placed in such a manner that it would not kill or significantly disturb terrestrial vegetation.

Status of Environmental Impact Statement.—The Final Environmental Impact Statement was filed with the Environmental Protection Agency on June 19, 1981.

Project Costs (estimated at October 1982 price levels):

Federal: $6,760,000.[1]

Non-Federal: $1,932,000.[1]

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[1] These costs include $1,221,000 to be reimbursed by non-Federal interests to the United States pursuant to Section 302.

Benefit/Cost Ratio (7⅞ percent interest rate and 50-year economic life): 1.10.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way, relocations, alterations and a portion of recreational feature costs, as necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

Remarks.—The Committee notes the environmental concerns expressed by the Environmental Protection Agency and the Department of the Interior in their evaluations of the recommended plan. Accordingly, in the interest of protecting environmental values, the Committee has directed that the Corps during preconstruction planning shall review potential sites for the disposal of dredged material from the Nelsonville project and shall select disposal sites determined to be necessary and appropriate to minimize adverse effects on fish and wildlife habitat areas. The Committee directs that the fish and wildlife mitigation measures described in the recommended plan be implemented concurrently with other project features, where feasible and appropriate.

SCIOTO RIVER, OHIO

Location.—In the northern portion of the City of Chillicothe and portions of adjacent Ross County, on the left bank of the Scioto River, about 49 miles south of Columbus, Ohio.

Authority for Report.—House Public Works Committee resolutions adopted July 4, 1970, for the Central Ohio Region, and December 9, 1975 for Chillicothe, Ohio.

Description of Recommended Plan.—The combination of a flat river slope, low banks, and a wide floodplain results in extensive flood damage during and following storms. The primary local need is relief from flooding. There is also a local need for outdoor recreational facilities, and enhancement and preservation of the existing natural environment.

The recommended plan of improvement consists of 13,400 feet of earth levee with an average height of 15 feet and a top width of 10 feet, appropriate closure structures, stone slope protection along 3,170 feet of the left bank of the Scioto River, and a pumping station to handle interior drainage. The project will require approximately 35 acres of permanent right-of-way for the levee itself, 31 acres of pondage easements, and 45 acres for an environmental corridor. Temporary right-of-way requirements will be minimal. A barn and another building now utilized as a clubhouse for the Running Fox golf course will need to be relocated. A 7,200 foot hard-surfaced hiking and biking trail with convenient rest areas will be provided along the top of the levee. Small boating access will be included at the downstream and upstream termini of the environmental corridor. Recreational facilities will include access roads, launching ramps, parking spaces for 12 vehicles at each location and fishing access for the handicapped. Also, a riverside nature walking trail will be included.

The environmental corridor component will include approximately 45 acres along the left descending bank of the Scioto River. The width of the corridor will vary along the river bank to incorporate the zone of woody riparian vegetation. North Chillicothe will continue to participate in the National Flood Insurance Program.

Views of States and Non-Federal Interests.—The State of Ohio concurrred in the recommended plan.

Views of Federal and Regional Agencies.—The Department of the Interior and the Environmental Protection Agency had no objections to the recommended plan.

Status of Environmental Impact Statement.—The Final Environmental Impact Statement was filed with the Environmental Protection Agency on May 8, 1981.

Project Costs (estimated at October 1982 price levels):

Federal: $9,100,000.[1]

Non-Federal: $2,840,000.[1]

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[1] These costs include $1,150,000 to be reimbursed by non-Federal interests to the United States pursuant to Section 302.

Benefit/Cost Ratio (7⅞ percent interest rate and 50-year economic life): 1.70.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way, relocations, alterations, disposal areas, and a portion of recreational feature costs, as necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

LITTLE MIAMI RIVER, OHIO

Location.—In Montgomery County in southwest Ohio, about seven miles south of Dayton, Ohio.

Authority for Report.—Senate Public Works Committee resolution adopted May 31, 1967 and House Public Works Committee resolution adopted October 19, 1967.

Description of Recommended Plan.—A flood threat along Holes Creek in low lying areas of West Carrollton, Moraine, and Miami Township has resulted in numerous requests from local officials for Federal assistance in alleviating the problem. A need for urban recreational opportunities also exists in the area.

The recommended plan, includes about 1.43 miles of channel enlargement and replacement of the Conrail Railroad Bridge, will provide a 500-year degree of protection (based on future runoff conditions) to affected downstream properties. Design concepts have incorporated the construction of pools and riffles, restriction of channel widening to one bank only, where practical, and the preservation of a streamside woodlot for fish and wildlife mitigation. The plan also includes recreational development along the improvement. Recreational facilities will be for day-use and will consist mainly of walking and biking trails, with some playground and picnicking facilities.

Views of States and Non-Federal Interests.—The State of Ohio concurred in the recommended plan and stated that the plan is compatible with the existing environment. The Miami Conservancy District, the City of Fairfield, Miami Township, and Montgomery County generally concurred in the recommended plan.

Views of Federal and Regional Agencies.—The Departments of Agriculture, Housing and Urban Development, and the Interior expressed no objection to the proposed project. The Environmental Protection Agency expressed reservations on the adverse environmental effects of the proposed structural measures, favoring a nonstructural alternative.

Status of Environmental Impact Statement.—The Final Environmental Impact Statement was filed with the Environmental Protection Agency on May 28, 1981.

Project Costs (estimated at October 1982 price levels):
Federal: $6,000,000.
Non-Federal: $2,540,000.

Benefit/Cost Ratio (7⅞ percent interest rate and 50-year economic life): 1.20.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way, relocations, utilities alterations, and portions of mitigation and recreational feature costs, as necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

MIAMI RIVER, FAIRFIELD, OHIO

Location.—Pleasant Run, a tributary of the Miami River at Fairfield, Ohio, is located in the south-central part of Butler County, Ohio, approximately five miles southeast of Hamilton, Ohio, and 15 miles northwest of Cincinnati, Ohio.

Authority for Report.—Senate Public Works Committee resolution adopted May 31, 1967, and House Public Works Committee resolution adopted October 19, 1967.

Description of Recommended Plan.—The recommended plan to alleviate flooding problems on Pleasant Run consists of three dry bed reservoirs and 0.83 miles of channel enlargement designed to provide a 35-year degree of protection (under future runoff conditions) to affected downstream properties. Design concepts have incorporated the construction of pools and riffles; restriction of channel widening to one bank only, where possible; and preservation of wooded areas and open space throughout the project area including approximately five acres of fish and wildlife mitigation lands adjacent to the stream.

Lands required for the project amount to 167 acres, including approximately five acres of mitigation lands adjoining project lands. Required utility relocations will include sanitary sewers and pipelines. The only structure that may require relocation is a 12-unit apartment building.

Urban oriented, outdoor day-use recreational facility development is included in the recommended plan for the three dry bed reservoirs. Recreational facilities will include approximately 7,000 square yards of roads and parking area, 21,800 lineal feet of jogging and walking trails, 17,300 lineal feet of hiking trails, a tot lot, 40 picnic units, shelters, restrooms, utility buildings, utilities, landscaping, and multipurpose fields. Development themes vary among the three reservoir sites from intensive day-use development to passive nature study areas. Five acres of wooded hillside, adjoining lands required for channel enlargement, are proposed for acquisition and preservation. No additional separate mitigation items were identified. However, as a part of the environmental/engineering design of the flood control plan, environmental features including limiting channel construction to one side of the channel only, where possible, and providing pools, riffles, tree plantings and landscaping, have been incorporated in the recommended plan to reduce project and construction impacts.

Views of States and Non-Federal Interests.—The State of Ohio concurred in the plan recommended by the District Engineer, rather than in the plan recommended by the Board of Engineers for Rivers and Harbors. The District Engineer's plan would provide a higher degree of flood protection to Fairfield, but it would be more costly and provide less net benefits than the Board of Engineers' plan.

The Miami Conservancy District and the City of Fairfield commented favorably on the plan recommended by the District Engineer and have indicated their willingness to provide the necessary items of non-Federal participation for the project.

Views of Federal and Regional Agencies.—The Environmental Protection Agency expressed no objection to the recommended plan. The Fish and Wildlife Service of the Department of the Interior, in its Fish and Wildlife Coordination Act report on the recommended plan, proposed a number of measures which would mitigate losses to fish and wildlife habitat.

Status of Environmental Impact Statement.—The Final Environmental Impact Statement was filed with Environmental Protection Agency on December 17, 1982.

Project Costs (estimated at October 1982 price levels):

Federal: $9,200,000.

Non-Federal: $4,300,000.

Benefit/Cost Ratio (7⅞ percent interest rate and 50-year economic life): 1.4.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way, relocations, and a portion of the costs of mitigation and recreational features, as necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors. A portion of the lands required for construction of the dry bed reservoirs has already been acquired by local interests in order to preserve these sites; additionally, the majority of necessary easements for stream maintenance as well as protection from encroachments are already under local government ownership.

Remarks.—The Committee notes that the Fish and Wildlife Service, in its Fish and Wildlife Coordination Act Report on the proposed plan of improvement, recommended a number of measures to mitigate fish and wildlife habitat losses that might arise as a result of this project. In accordance with the recommendations of the Fish and Wildlife Service, and in the interest of protecting environmental values, the Committee has directed that the Fairfield project shall include, to the extent necessary and appropriate, additional measures for mitigation of losses of fish and wildlife habitat, including seeding and planting in disturbed areas; limiting removal of riparian vegetation to the minimum amount necessary for project objectives; performing work along the north streambank where construction is planned on only one side of the channel; limiting construction activities to the right streambank in the reach of Pleasant Run extending from mile 2.75 to mile 3.10; using gabions and riprap for bank protection in lieu of concrete; and constructing pool-riffle complexes at bridges.

HARRISBURG, PA.

Location.—In south-central Pennsylvania, approximately 115 miles north of Washington, D.C.

Authority for Report.—House Public Works Committee resolutions dated June 24, 1965, and October 12, 1972, and Senate Public Works Committee resolutions dated October 5, 1961 and July 7, 1972.

Description of Recommended Plan.—Flood protection against recurrent flooding from both Paxton Creek and Susquehanna River is needed in South Harrisburg. The flood of record, in June of 1972, caused over $85 million in damages at 1972 prices. The recommended plan of improvement consists of constructing a floodwall, channel improvements, a pumping plant, a small dam and minor recreation facilities to provide flood protection for South Harrisburg and provide recreation opportunities for the area.

Asylum Run Dam will be a dry dam providing 410 acre-feet of storage on 40 acres of land during flood conditions to reduce peak flows on Paxton Creek.

Channel improvements will include 3 miles of improved channel, ranging from a 30-foot-wide concrete channel to a 50-foot-wide earthen channel, to protect against a 100-year flow on Paxton Creek.

A floodwall 3,800 feet long and averaging 12 feet high will be constructed to protect against Susquehanna River flows up to 1,020,000 cubic feet per second.

Recreational features will include 2,100 feet of trails and 14,000 feet of bikeway and walkway.

Views of States and Non-Federal Interests.—The Commonwealth of Pennsylvania supports the project, although the Pennsylvania Fish Commission has expressed concern over the proposed wide channel on Paxton Creek. Paxton Creek is presently polluted, but the Fish Commission feels this problem will probably be corrected in the future. In anticipation of future improved water quality, the Commission has suggested that a low flow channel or fishway be included in both the improved earth channel and the concrete channel. The City of Harrisburg has agreed to provide the necessary items of non-Federal participation for the project.

Views of Federal and Regional Agencies.—The Department of the Interior recommended exploring the feasibility of providing a floodway along Paxton Creek between Wildwood Lake and Maclay Street and adopting a floodway plan if it is found to be superior to the recommended plan during preconstruction planning. The Department of the Interior also recommended that the plan be modified to provide such mitigation or compensation as may be agreed upon by the Corps and the Fish and Wildlife Service during preconstruction planning to eliminate, reduce or offset fish and wildlife losses in the upper reaches of the project area.

The Environmental Protection Agency stated that it had no objections to the project, but suggested additional modifications to bridges to prevent possible damming of Paxton Creek. The Environmental Protection Agency also stated it believes a floodway should be considered as an alternative to the recommended plan, in order to reduce possible adverse impacts on the biota.

The Department of Commerce expressed concerns that geodetic control survey monuments may be located in the proposed project area. They recommended that funding for the project include the cost of any necessary relocations of those monuments.

Status of Environmental Impact Statement.—The Final Environmental Impact Statement was filed with Environmental Protection Agency on March 20, 1981.

Project Costs (estimated at October 1982 price levels):

Federal: $101,900,000.

Non-Federal: $30,808,000.

Benefit/Cost Ratio (7⅞ percent interest rate and 50-year economic life): 1.6.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way, and relocations, including those needed for borrow and disposal areas, as necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

Remarks.—In view of concerns regarding the Harrisburg project raised by the Environmental Protection Agency, the Department of the Interior and the Pennsylvania Fish Commission, the Committee has directed that a number of measures be undertaken by the Corps to protect environmental values. To the extent determined necessary and appropriate, the Harrisburg project shall include a low-flow channel or fishway in both the improved earth channel and the concrete channel portion of the project, the utilization of sloping side sections in the concrete channel, and modifications to bridges crossing Paxton Creek to prevent damming of the creek. The Corps shall also study the feasibility of providing a floodway along Paxton Creek between Wildwood Lake and Maclay Street as an alternative to the recommended plan and shall reexamine fish and wildlife habitat mitigation measures recommended in the report of the Chief of Engineers. Not later than one year after the date of enactment of the bill, the Corps shall transmit to the House Committee on Public Works and Transportation and the Senate Committee on Environment and Public Works a report of that study along with recommendations for any modifications the Secretary determines to be feasible and appropriate to construct such floodway and for any additional measures which the Corps determines to be necessary and appropriate to reduce fish and wildlife habitat losses in the project area. Except for funds from the Environmental Protection and Mitigation Fund established in Title XI, no appropriation shall be made for the acquistion of any interest in real property for, or the actual construction of, the Harrisburg project if that acquisition and actual construction have not been approved by the resolutions of the two Committees. In accordance with the wishes of the Department of Commerce, the Committee has also directed that the project shall include the cost of any relocation required for geodetic control survey monuments.

LOCK HAVEN, PA.

Location.—The City of Lock Haven lies in Clinton County, in the north-central portion of the Commonwealth of Pennsylvania, approximately 130 miles northeast of Pittsburgh, Pennsylvania, and 200 miles west of the New York City.

Authority for Report (Phase I General Design Memorandum).—Section 101(a) of the Water Resources Development Act of 1976.

Description of Recommended Plan.—Nearly the entire City of Lock Haven is subject to flooding, both from the West Branch Susquehanna River and from Bald Eagle Creek. The City has been flooded nineteen times in the last 130 years. The most damaging flood occurred in June of 1972, when Tropical Storm Agnes inundated the entire business district and many of the residential areas of the City and adjoining townships.

The recommended plan of improvement provides standard project flood protection for the City of Lock Haven, and for portions of Castanea and Woodward Townships, against flood flows on the West Branch Susquehanna River and Bald Eagle Creek. The plan consists of 24,500 feet of levee with an average height of 21 feet, 6,500 feet of floodwall with an average height of 18 feet, 10 closure structures, and 4 pumping stations. The plan will require the removal of 28 structures and the acquisition of 77 acres of land along the project alignment and in the ponding areas. One hundred thirty-nine structures in Lockport, Dunnstown, and Woodward Township, located directly across the West Branch Susquehanna River from Lock Haven will be acquired and removed. In addition, 4 residences will be floodproofed. The recommended plan provides for 15,000 feet of bicycle and jogging path along a portion of the alignment and for the construction of 8 mini-parks and 9 scenic overlooks at various locations along the alignment.

Views of States and Non-Federal Interests.—The Commonwealth of Pennsylvania supports the recommended plan. The local sponsors for the project, the City of Lock Haven and Clinton County, support the plan.

Views of Federal and Regional Agencies.—The Environmental Protection Agency stated it had no concerns with the recommended plan. The Department of the Interior concurred in the plan. The Susquehanna River Basin Commission expressed its support for the plan.

Status of Environmental Impact Statement.—The Final Supplement to the Environmental Impact Statement was filed with the Environmental Protection Agency on June 5, 1981.

Project Costs (estimated at October 1982 price levels):

Federal: $65,500,000.[1]

Non-Federal: $18,350,000.[1]

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[1] These costs include $10,450,000 to be reimbursed by non-Federal interests to the United States pursuant to Section 302.

Benefit/Cost Ratio (7⅞ percent interest rate and 100-year economic life): 1.16.

Non-Federal Responsibilities. Non-Federal interests will be required to provide lands, easements, rights-of-way, and relocations necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

Remarks.—The plan recommended by the District Engineer would provide protection for the City of Lock Haven against the standard project flood. The Board of Engineers for Rivers and Harbors recommended that the Chief of Engineers should be given discretionary authority to decide a final level of protection, above the 100-year level. In order to prevent catastrophic losses in human life and property, the plan providing a higher degree of protection and safety recommended by the District Engineer shall be implemented. This is the most appropriate level of protection, taking into account the high potential for catastrophic losses in human life and property, in the event of overtopping and consequent failure of the high levees and floodwalls.

SCHUYLKILL RIVER BASIN, POTTSTOWN, PA.

Location.—The Borough of Pottstown and the communities of South Pottstown and Kenilworth are located in the Schuylkill River Basin in southeastern Pennsylvania, in Chester and Montgomery Counties. The Schuylkill River Basin is about 80 miles long and 24 miles wide, and encompasses an area of 1,916 square miles above the Schuylkill River's confluence with the Delaware River at Philadelphia.

Authority for Report.—House Public Works Committee resolution adopted October 5, 1966, and Senate Public Works Committee resolution adopted November 5, 1969. As a result of the recommendations developed pursuant to these resolutions, the Pottstown local flood protection project was authorized as a Federal undertaking in 1974 under the provisions of section 201 of the Flood Control Act of 1965.

Description of Recommended Plan.—The Schuylkill River Basin is subject to flooding from all types of storms including hurricanes, continental storms, and regional thunderstorms. The river channel capacity in the study area is not large enough to pass the discharges associated with storms occurring over the 1,147 square miles of drainage area upstream of Pottstown. Manatawny Creek has experienced flood damages from Schuylkill River backwaters as well as from the runoff from smaller localized storms over the Manatawny Creek watershed. The Pottstown area has suffered from overbank Schuylkill River floods about 45 times since 1757. The greatest flood experienced in the study area occurred during Tropical Storm Agnes in June of 1972. That storm extended throughout the Schuylkill River Basin and deposited more than 13 inches of rain on the upper portions of the watershed. Damages resulting from the June 1972 flood for the Schuylkill River watershed, based on the level of development that existed at that time and on July 1972 price levels, were estimated at $25 million. Recurrent flooding in the area has caused extensive damage to homes, commercial establishments, industrial firms, and municipal property, and has endangered the general welfare and security of residents.

The authorized project provides for about 7,600 feet of channel improvement, development of disposal areas as open space along the Schuylkill River, and opening an arch bypass around the High Street Bridge on Manatawny Creek.

Views of States and Non-Federal Interests.—The Commonwealth of Pennsylvania strongly supports the construction of a flood control project for Pottstown to minimize flood damages in the future.

Views of Federal and Regional Agencies.—The Environmental Protection Agency expressed concern that dredging of the Schuylkill River could cause serious siltation and suggested that dredging not take place during resident and anadromous fish spawning seasons. It also expressed concerns generally about the impacts of channelization as opposed to easements, levees and floodwalls. The Department of the Interior stated that the recommended plan will not adversely affect any existing or proposed units of the National Park System or any eligible or potentially eligible natural landmarks.

Status of Environmental Impact Statement.—The Final Environmental Impact Statement was filed with the Council on Environmental Quality on June 3, 1974.

Project Costs (estimated at October 1982 price levels):

Federal: $5,138,000.

Non-Federal: $1,284,000.

Remarks.—The Committee notes that advanced engineering and design for the authorized Pottstown project was initiated with funds provided in fiscal year 1976 and funding continued through fiscal year 1978. No additional funds are needed to complete planning.

Pottstown is an established area with severe flooding problems. The only workable solution, from the standpoint of the well-being of the people in the area, is the implementation of the authorized flood control project. The Committee has accordingly made the finding that the overall project benefits exceed the costs.

SAW MILL RUN, PA.

Location.—In Southwestern Pennsylvania, in the West End section of the City of Pittsburgh.

Authority for Report.—House Public Works Committee resolution adopted February 24, 1960.

Description of Recommended Plan.—The primary water resources problem of the area is the inability of the existing channel of Saw Mill Run to contain flood flows within its banks. Also, during high flows, storm drains and sanitary sewers back up and overflow. The most recent flood event occurred in July 1980.

The recommended plan of improvement would consist of deepening and minor realignment of about 5,600 feet of the Saw Mill Run channel through the heavily developed West End section of Pittsburgh. The plan will provide protection against a flood with an average recurrence interval of 50 years. Average annual flood damages in the West End area will be reduced by about 92 percent. The quality of life for residents will be enhanced by removing the threat of frequent flooding, and a net environmental enhancement will result from improved aesthetic values and the creation of a green area. Landscapping and removal of litter and debris from the stream banks and channel will provide a significant aesthetic improvement, and the substantial reduction in frequency of overbank flooding with its resultant deposition of raw sewage on the floodplain will enhance the health and welfare of the community.

Views of States and Non-Federal Interests.— The Commonwealth of Pennsylvania has strongly supported the Saw Mill Run project and urged an early start to construction. No objections or comments were offered by the State game or fish commissions. The City of Pittsburgh has indicated its willingness to act as the local sponsor and to provide the required items of non-Federal participation. The City has made considerable capital investments in the vicinity of the project in anticipation of the project's construction.

Views of Federal and Regional Agencies.—The Environmental Protection Agency stated it had no objection to the recommended plan. The Department of the Interior stated that implementation of the recommended plan will not appreciably damage the presently impoverished fish and wildlife resources within the project area.

Status of Environmental Impact Statement.—The Final Environmental Impact Statement was filed with the Council on Environmental Quality on December 11, 1978.

Project Costs (estimated at October 1982 price levels):

Federal: $7,020,000.[1]

Non-Federal: $1,827,000.[1]

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[1] These costs include $1,537,000 to be reimbursed by non-Federal interests to the United States pursuant to Section 302.

Benefit/Cost Ratio (7⅞ percent interest rate and 50-year economic life): 1.09.

Non-Federal Responsibilities.—The City of Pittsburgh will be required to provide lands, easements, rights-of-way, relocations, alterations, and disposal areas necessary for the project's construction. The City will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

WYOMING VALLEY, PA.

Location.—The Wyoming valley lies in Luzerne County, in the northeast portion of the Commonwealth of Pennsylvania, approximately 110 miles northwest of New York City and 90 miles northeast of Harrisburg, Pennsylvania.

Authority for Report (Phase I General Design Memorandum).— Sections 101(a) and 141 of the Water Resources Development Act of 1976.

Description of Recommended Plan.—The existing Federal flood control system in the Wyoming Valley provides only a 50-year design level of protection for an intensively developed major urban area. There is a high probability that an overtopping of the existing system would cause a catastrophic flood disaster, involving possible loss of life and very extensive property damage.

The most severe flood of record, Tropical Storm Agnes in June of 1972, overtopped the existing levee system by 4 to 5 feet. Flood damages in the study area were estimated to be $730 million at June 1972 price levels. Fortunately, no deaths were directly attributed to that flood in the Wyoming Valley. A recurrence of a flood the magnitude of Agnes under today's conditions would cause in excess of $1 billion in damages and threaten many lives. Agnes is currently estimated to be a 500-year flood event, taking into account the effects of the upstream Tioga-Hammond and Cowanesque reservoir projects.

The recommended plan of improvement will provide flood protection against flood levels on the Susquehanna river equal to those produced by Tropical Storm Agnes. The plan will raise the existing levee system in the Wyoming Valley by five to seven feet, provide new closure and drainage structures, provide a new pumping station, and provide new levees and floodwalls to maintain the system's integrity at five communities in the Wyoming Valley—the communities of Wilkes-Barre/Hanover Township, Swoyersville/Forty-Fort, Exeter/West Pittston, Kingston/Edwardsville, and Plymouth.

Induced flooding from raising the existing levee system will be mitigated at eight communities. Mitigation at five of the communities with existing flood protection projects—Sunbury, Danville, Brookside, Miners Mills, and Duryea—will be by levee or floodwall raising. At two communities—Plainsville and Port Blanchard—nonstructural mitigation measures consisting of a combination of evacuation, floodproofing, relocation, and a ring levee-floodwall system will be employed. At Bloomsburg, the mitigation measure will consist of the removal of an abandoned Conrail bridge.

The loss of existing recreational opportunities, generally consisting of parkland and river access which will be adversely affected by the levee-raising plan, will be mitigated. Mitigation will include landscaping, providing stairs over floodwalls, and providing ramps and paths. Enhancement features consisting of jogging and bicycle paths, wall crossings, the upgrading of an existing boat ramp, and picnic tables would also be provided.

There are five major islands on the Susquehanna River in the Wyoming Valley area which provide a unique natural environment. As part of the local cooperation requirements of the proposed project, local interests will be required to prevent degradation of valuable wildlife habitat on these islands.

Views of States and Non-Federal Interests.—The Commonwealth of Pennsylvania and the Luzerne County Commission support the recommended plan.

Views of Federal and Regional Agencies.—No Federal or regional agencies have raised significant issues with regard to the recommended plan.

Status of Environmental Impact Statement.—The Draft Environmental Impact Statement was filed with the Environmental Protection Agency on July 10, 1981.

Project Costs (estimated at October 1982 price levels):

Federal: $212,900,000.[1]

Non-Federal: $54,645,000.[1]

[1] These costs include $50,145,000 to be reimbursed by non-Federal interests to the United States pursuant to Section 302.

Benefit/Cost Ratio (7⅞ percent interest rate and 100-year economic life): 1.30.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way, relocations and a portion of the cost of mitigation and recreational features as necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

EIGHT MILE CREEK, PARAGOULD, ARK.

Location.—Paragould, Arkansas is located in the middle reach of the St. Francis Basin watershed, about 50 miles northwest of Memphis, Tennessee.

Authority for Report.—Resolutions adopted on March 27, 1967, and on October 19, 1967, by the Senate Public Works Committee and the House Public Works Committee, respectively.

Description of Recommended Plan.—Minor channel improvements have been made in recent years by the local government, as well as by the Federal Government under the clearing and snagging provision of section 208 of the 1954 Flood Control Act. However, due to inadequate channel capacity, aggravated by siltation from upstream agricultural lands, the lands around Eight Mile Creek are still subject to frequent flooding. During the last 40 years, major floods in the basin have been reported every 4 to 12 years. One of the most recent floods to occur in the Eight Mile Creek Basin was in April 1973, with 6.77 inches of rainfall occurring in 16 hours. About 3,000 persons were forced from their homes, and the resulting damages to homes and businesses were estimated to be $3.6 million; updating these damages to October 1982 price levels would bring the amount to $12.3 million.

The recommended plan of improvement consists of 11.4 miles of channel enlargement to provide protection against urban and rural flood damages. The proposed channel enlargement will require the purchase of 245 acres of right-of-way and the relocation or modification of 13 bridges and a number of utilities.

The recommended plan also includes the establishment of a greenway along the channel improvement, with miniparks and hiking and biking trails. The greenway would improve aesthetics along the channel as well as provide opportunities for such recreational activities as hiking, biking, picnicking, nature study and sightseeing.

Views of States and Non-Federal Interests.—The State of Arkansas raised no objections to the recommended plan.

Views of Federal and Regional Agencies.—The Department of the Interior concurred in the recommended plan. The Environmental Protection Agency stated that it had no objection to the recommended plan.

Status of Environmental Impact Statement.—The Final Environmental Impact Statement was filed with the Environmental Protection Agency on February 27, 1981.

Project Costs (estimated at October 1982 price levels):

Federal: $14,450,000.[1]

Non-Federal: $3,650,000.[1]

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[1] These costs include $3,600,000 to be reimbursed by non-Federal interests to the United States pursuant to Section 302.

Benefit/Cost Ratio (7⅞ percent interest rate and 50-year economic life): 1.30.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way, relocations, and a portion of the cost of recreational features, as necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

Remarks.—The project for Eight Mile Creek shall also include improvement of Fifteen Mile Bayou and tributaries as recommended by the District Engineer and Mississippi River Commission in reports dated February 1978 and May 24, 1977, respectively. The area addressed in those reports lies in eastern Arkansas, adjacent to the Mississippi River and immediately west of Memphis, Tennessee. The present local drainage channels have been improved in a series of improvements between 1952 and 1975 by both the Corps of Engineers and local interests, and the area is protected against Mississippi River flooding by a main line levee constructed by the Corps of Engineers.

Local interests have indicated that during periods of rapid runoff the streams become full and overflow due to their limited carrying capacity.

The recommended plan of improvement will reduce the flood problems in the agricultural areas along Fifteen Mile and Ten Mile Bayous as well as the urban areas in the vicinity of Edmonston and West Memphis, Arkansas. The improvement will consist of enlargement of 11.9 miles of Fifteen Mile Bayou, enlargement of 8.23 miles of Ten Mile Bayou, vegetative clearing of 2.87 miles of Ten Mile Bayou, revegetation of rights-of-way for wildlife habitat and aesthetics.

FOURCHE BAYOU BASIN, ARK.

Location.—The Fourche Bayou Basin lies in Saline and Pulaski Counties in central Arkansas, major portions of the problem area lie within the city limits of Little Rock, Arkansas.

Authority for Report.—Senate Public Works Committee resolution adopted May 10, 1967.

Description of Recommended Plan.—The principal water resources problem in the area is urban flooding casued by inadequate channel capacities of Fourche Creek and its tributaries. The last major flood, in September of 1978, caused over $17 million in damages at 1978 prices. The recommended plan of improvement consists of channel clearing, channel improvement, flood plain management measures to restrict future development in the 100-year flood plain, and acquisition of 1,750 acres of bottomlond for environmental preservation. The project is designed to prevent approximately 95 percent of the average annual damages from overbank flooding.

A 20-acre nature appreciation area will be established on lands acquired for the project, and hiking and bicycle trails will be developed along the channel.

Views of States and Non-Federal Interests.—The State of Arkansas supports the plan which was recommended by the District and Division Engineers. This plan would cost $8.2 million more to construct than would the plan recommended by the Board of Engineers for Rivers and Harbors; however, the former plan would provide a higher level of flood damage reduction. The City and County governments also preferred the plan recommended by the District and Division Engineers, but stated that they would be willing to accept the plan recommended by the Board of Engineers in order to expedite the project.

Views of Federal and Regional Agencies.—Both the Environmental Protection Agency and the Fish and Wildlife Service advocated greater use of non-structural measures to reduce the amount of channelization required by either the plan recommended by the District and Division Engineers or by the plan recommended by the Board of Engineers. The Department of Agriculture and the Department of the Interior expressly favored the acquistion of 1,750 acres of bottomland hardwoods included in both plans.

Status of Environmental Impact Statement.—The Final Environmental Impact Statement was filed with the Environmental Protectin Agency on March 20, 1981.

Project Costs (estimated at October 1982 price levels):

Federal: $20,200,000.

Non-Federal: $8,797,000.

Benefit/Cost Ratio (7⅞ percent interest rate and 100-year economic life): 2.10.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way, relocations and a portion of the costs of recreational features, as necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

Remarks.—The Committee notes that the plan recommended by the Board, and subsequently by the Chief of Engineers, includes the acquisition and preservation of 1,750 acres of bottomland hardwood forest located almost entirely within the city limits of Little Rock, Arkansas. The preservation of these lands will provide unique opportunities for the public enjoyment of nature in an urban setting. The Committee favors this type of environmental preservation and approves of the decision of the Chief of Engineers to recommend this plan.

HELENA AND VICINITY, ARK.

Location.—The City of Helena is located in Phillips County in east central Arkansas, adjacent to the Mississippi River.

Authority for Report.—Senate Public Works Committee resolution adopted July 1, 1975.

Description of Recommended Plan.—Flooding has been a problem in Helena for many years an has progressively worsened since the paving and covering of many open drainage ditches approximately 25 years ago. The entire downtown business district is located within the 100-year flood plain. Major floods occurred in April of 1973 and in May of 1974. The Helena area was declared a major disaster area in 1973 because of severe flooding resulting from localized rainfall and impounded floodwaters behind the levee. Damages at that time amounted to millions of dollars. The occurrence of a 100-year frequency flood event under 1981 conditions would cause inundation damages to 425 residential structures, 144 commercial/industrial structures, 8 public facilities and 7 churches at an estimated cost of $6.8 million.

The recommended plan provides for improvement of 1.85 miles of stream channel adequate to contain the 10-year frequency storm event and construction of a 223-cubic-foot-per-second capacity pumping station to pump flood flows into the Mississippi River. The channel will be earthen from the pumping station to upstream of Hank's Lane. From upstream of Hank's Lane to U.S. Highway 49 Business, the channel will be concrete-lined. The portion from Missouri Street to Beech Street will be underground. A gated culvert, to be located downstream of the U.S. Highway 49 bridge, will prevent back flows from Long Lake into the pumping station. Also, the bottom grade of Outlet Ditch between the pumping station and the gated culvert will be lowered to allow the sump to drain naturally.

Views of States and Non-Federal Interests.—Local interests have requested flood control in Helena and are in agreement with the recommended plan of improvement. Local interests have stated their willingness to provide the necessary items of non-Federal participation.

Views of Federal and Regional Agencies.—The proposed report of the Chief of Engineers was coordinated with all appropriate Federal and regional agencies. No unresolved concerns were raised regarding the proposed project.

Status of Environmental Impact Statement.—The Memphis District Engineer determined that the proposed project would not significantly affect the quality of the human environment; therefore, no Environmental Impact Statement has been prepared for the recommended plan.

Project Costs (estimated at October 1982 price levels):

Federal: $11,600,000.[1]

Non-Federal: $3,325,000.[1]

[1] These costs include $1,625,000 to be reimbursed by non-Federal interests to the United States pursuant to Section 302.

Benefit/Cost Ratio (7⅞ percent interest rate and 50-year economic life): 1.40.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way, and relocations (except for railroad bridges) necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

WEST MEMPHIS AND VICINITY, ARK.

Location.—In the St. Francis River Basin, along the Mississippi River in east-central Arkansas, approximately eight miles due west of Memphis, Tennessee. A large portion of the area benefited by the recommended plan is within the City of West Memphis, Arkansas.

Authority for Report.—Senate Public Works Committee resolution adopted May 29, 1975.

Description of Recommended Plan.—The primary problem in the vicinity of West Memphis, Arkansas is the recurrent flooding of commercial, industrial, residential and agricultural areas. Damaging floods of varying levels occurred in December of 1982, April of 1979, May of 1975, January of 1974, April of 1973, December of 1972, April of 1964 and January of 1957.

The recommended plan consists of 10.85 miles of channel enlargement on Fifteen Mile Bayou and 13.01 miles of channel enlargement on Ten Mile Bayou, with restrictive easements taken on the rights-of-way and a limited revegetative program to reduce environmental losses due to the flood control feature. The recommended plan will provide protection from the 10-year flood event to urban structures downstream of the end of improvements on Ten Mile Bayou. Upstream of the end of improvement, structures in some areas will be affected by flood events smaller than 10-years, but will receive some reduction in damages. However, most structures in the urban areas will receive a greater than 10-year level of protection. The channels through agricultural areas are designed to carry urban floodwaters and provide protection from the 10-year flood. The plan includes enlargement from one side as much as possible and avoiding identified wetlands and a dead timber swamp near the construction area.

Views of States and Non-Federal Interests.—The City of West Memphis, Drainage Districts Numbered 2 and 6 of Crittanden County, and Crittanden County very much desire flood control in the vincinity of West Memphis, and are in agreement with the recommended plan of improvement. The City of West Memphis has passed a resolution indicating its support for the project. The State of Arkansas has indicated its support for the recommended plan.

Views of Federal and Regional Agencies.—The Federal and Regional Agencies having an interest in the project have expressed either their support for, or the need for the project.

Status of Environmental Impact Statement.—The Memphis District Engineer determined the recommended improvements would not significantly affect the quality of the human environment; therefore, no Environmental Impact Statement was prepared for the recommended plan. An Environmental Assessment and Finding of No Significant Impact were prepared.

Project Costs (estimated at October 1982 price levels):

Federal: $19,881,000.[1]

Non-Federal: $4,970,000.[1]

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[1] These costs include $4,970,000 to be reimbursed by non-Federal interests to the United States pursuant to Section 302.

Benefit/Cost Ratio (7⅞ percent interest rate and 100-year economic life): 2.10.

Non-Federal Responsibilities.—Non-Federal interest will be required to provide lands, easements, rights-of-way, and relocations necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

MINGO CREEK, OKLA.

Location.—Within the city limits of Tulsa, Oklahoma.

Authority for Report.—Section 208 of the Flood Control Act of 1965, as modified by Section 134b of the Water Resources Development Act of 1976.

Description of Recommended Plan.—Mingo Creek is a tributary of Bird Creek and is part of the Verdigris River Basin. Mingo Creek flows from south to north through the eastern part of Tulsa, Oklahoma. Approximately 90 percent of Mingo Creek's 60-square mile drainage area lies within the City of Tulsa.

On the average, Mingo Creek floods once every 2 to 3 years. Since 1959, nine major floods have been recorded. Mingo Creek peaks quickly, providing little warning time for the residents of approximately 3,100 homes in the flood plain. These floods rise rapidly, within 30 minutes of a heavy rain, and recede quickly, after only 1 to 6 hours. A 100-year flood (with full watershed urbanization) could rise 4 to 8 feet above the streambank and flow at a velocity of more than 5 feet per second. Such a flood would present great hazards to life and property. Tulsa's largest flood, which occurred in May of 1976, resulted in two fatalities and caused damages along the mainstem and on major tributaries of Mingo Creek estimated at $26,000,000 at 1976 price levels. ($48,000,000 in 1982 prices).

The recommended plan of improvement consists of 23 detention ponds which will capture peak flows and hold them temporarily until downstream flows subside. There will be about 7.5 miles of channelization in selected spots on the tributaries and on the mainstem of Mingo Creek.

One detention site will be located at an existing pond, upstream of the Crosstown Expressway I-244. The existing dam will be removed and replaced with a higher and longer embankmant. A permanent pool with a storage of about 100 acre-feet and a maximum depth of 7 feet will be created for sediment storage over the life of the project. The embankment will be turfed on both the upstream and downstream slopes to prevent erosion, and the entire project area will be landscaped to form an aesthetically pleasing site.

Twenty-two excavated detetion sites consisting of floodwater holding areas excavated adjacent to the creek will be constructed. The operational concept of the excavated detention sites is to allow those streamflows up to the the streambank capacity of the stream to pass by the dentention sites without entering them. A concrete control structure will be built in the channel to regulate the flows passing each site. When streamflows reach a level above bank-full and begin to cause flooding, those floodflows will enter each detention site over a concrete-lined overflow weir. After the rainfall stops, the streamflows will decrease and the detention sites will automatically empty the stored water. The detention sites will skim off the flows that normally cause flooding and temporarily hold them until high, but the nondamaging, streamflows can pass. Floodwaters will be stored at or below the surrounding ground level. A flood of greater magnitude than the design flood will pass over the detention sites, causing no additional damage beyond what would have occurred without the detention sites. The surface of the filled detention sites will act as a natural ground surface, similar to that which existed prior to their construction.

Improved channels will be constructed where required to obtain 100-year protection with the detention sites in place.

Thirty-two residential or commercial structures will be removed, 21 bridges modified or replaced, and 700 acres of land obtained in fee.

Mitigation measures for the 90 acres of lost timber will include the acquisition of 35 acres between 11th and 21st Streets and the establishment of 55 acres of new timber at the detention sites.

Views of States and Non-Federal Interests.—The State of Oklahoma concurs in the recommended plan. The City of Tulsa fully supports the recommended plan, has already spent over $15 million towards implementation of the plan, and has expressed its willingness to provide the necessary items of non-Federal participation.

Views of Federal and Regional Agencies.—The Environmental Protection Agency had no objection to the recommended plan. The Department of the Interior expressed concern over the potential effects of the plan on four parks in the area (McClure, Rockwell, Norberg and Aaronson Parks).

Status of Environmental Impact Statement.—The Final Environmental Impact Statement was filed with the Environmental Protection Agency on June 3, 1981.

Project Costs (estimated at October 1982 price levels):

Federal: $82,100,000.

Non-Federal: $34,893,000.

Benefit/Cost Ratio (7⅞ percent interest rate and 100-year economic life): 2.80.

Non-Federal Responsibilities.—The City of Tulsa will be required to provide lands, easements, rights-of-way, and relocations (except for railroads) necessary for the project's construction. The City will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States and its contractors.

Remarks.—The Committee notes the concerns of the Department of the Interior regarding the use of four public parks—McClure, Rockwell, Norberg, and Aaronson Parks—as stormwater detention sites. Accordingly, the Committee has directed that the Mingo Creek project shall include measures determined appropriate by the Secretary, after consultation with the City of Tulsa, to minimize adverse effects associated with the use of flood water detention sites for the project.

FRY CREEKS, OKLA.

Location.—Within the city limits of Bixby, Oklahoma.

Authority for Report.—House Public Works Committee resolution adopted October 10, 1974.

Description of Recommended Plan.—The 100-year flood plain of the Fry Creeks covers 1,600 acres in north Bixby. Seven floods causing extensive property damage occurred in that area between 1970 and 1980. About 20 percent of the flood plain consists of residential and commercial development, the rest being cropland, pasture, and natural area. About 75 percent of the recurring flood damages are to single-family homes and utilities. Flood damages amount to about $1,200,000 annually.

The recommended plan of improvement includes enlarging Fry Creek 2 and diverting it south to the Arkansas River; enlarging Fry Creek 1 and diverting it west to join Fry Creek 2; and constructing a levee east of Fry Creek 1 to keep flood flows from Haikey Creek (to which Fry Creek 1 is a tributary) out of the Fry Creeks area.

Fry Creek 2 will be enlarged along its present alignment from the vicinity of 116th Street South to the point where the present channel turns east. From that point, Fry Creek 2 will be diverted west for a short distance and then south to the Arkansas River. Fry Creek 1 will be enlarged along its present alignment from the vicinity of 116th Street South to the point where the present channel turns east, then diverted south about 1000 feet, then due west across Memorial Drive to join the Fry Creek 2 diversion channel. The channels will be sloped to minimize scouring and sediment deposition. Channel depth will vary from 6 to 12 feet to accommodate 100-year flows.

A levee averaging 3 feet in height will be constructed along the east side of Fry Creek 1 to prevent Haikey Creek flood waters from flowing into the Fry Creeks watershed. The earthen levee will be about 3,500 feet long.

One hundred and nine acres of land will be obtained in fee, and maintenance easements will be required for an additional 21 acres. Twenty-three acres are presently dedicated as channel.

All channels and diversions will be designed to accommodate 100-year flood flows. This plan will remove about 1,100 acres in north Bixby from the 100-year floodplain. About 16 acres along the channel will be planted in natural trees and shrubs to mitigate wildlife habitat losses expected under the recommended plan.

The project area is presently zoned in conformance with the requirements resulting from participation in the National Flood Insurance Program, and the City of Bixby is presently participating in the Program. Present zoning controls over the residual flood plain will continue.

Views of States and Non-Federal Interests.—The Oklahoma Department of Transportation and the Oklahoma Water Resources Board have concurred in the recommended plan. The City of Bixby and Tulsa County have indicated their willingness to provide the necessary items of non-Federal participation for the project.

Views of Federal and Regional Agencies.—The Department of the Interior supports the recommended plan. The Environmental Protection Agency has stated that it has no objection to the plan. The Federal Emergency Management Agency and the Soil Conservation Service concur in the plan.

Status of Environmental Impact Statement.—The Final Environmental Impact Statement was filed with the Environmental Protection Agency on March 18, 1983.

Project Costs (estimated at October 1982 price levels):

Federal: $8,500,000.

Non-Federal: $3,200,000.

Benefit/Cost Ratio (7⅞ percent interest rate and 100-year economic life): 1.40.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way, and relocations necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

Remarks.—The Committee notes that the recommended plan includes the acquisition of 16 acres of land to mitigate the adverse effects associated with the direct loss of 20 acres of wildlife habitat. Accordingly, in the interest of protecting environmental values, the Committee has directed that for the Fry Creeks Project the Corps shall acquire a total of 20 acres of land for mitigation of fish and wildlife losses and that those mitigation lands shall be contiguous and in a corridor not less than 50 feet wide, to the extent feasible.

MALINE CREEK, MO.

Location.—In the highly urbanized area of St. Louis County, Missouri, adjacent to the northern boundary of the city of St. Louis.

Authority for Report.—Senate Public Works Committee resolutions adopted April 7 and October 4, 1966, July 15, 1970 and October 2, 1972; and House Public Works Committee resolutions adopted July 29, 1971 and October 12, 1972.

Description of Recommended Plan.—The problems in the project area include continuing environmental degradation in a highly urbanized area that lacks outdoor recreational opportunities, and average annual flood damages estimated to be $5,546,000 at October 1982 price levels. Maline Creek headwater flooding caused $16,500,000 in damages in April of 1979. The recommended plan of improvement captures the opportunity to provide $1,059,000 in average annual tangible recreation and environmental benefits in addition to $4,972,000 in average annual flood mitigation benefits based on October 1982 price levels.

The recommended plan of improvement includes 8 dry detention reservoirs, 3.29 miles of channel widening and straightening, 5 bridge replacements, 2 bridge improvements, 5.05 miles of low-level flood walls functioning as clusters of building floodproofing areas, 3.31 miles of low-level levees also functioning as clusters of building floodproofing areas, 91 acres of clearing to aid flood flow discharges, and acquisition of 474 acres along the stream corridor and 384 acres adjacent to detention basins to aid flood water discharge and prevent flood plain encroachment. Also included are 10 miles of environmental and recreational trails, 5 fish ponds, and 18 aquatic habitat structures.

The combined structural and nonstructural flood control features will result in a 90 percent reduction in annual flood damages.

Views of States and Non-Federal Interests.—The State of Missouri strongly supports the recommended plan and has stated that the project will serve as a model for current and future studies of ways to reduce flood damages in urban areas without being destructive of the environment. The St. Louis Metropolitan Sewer District has agreed to provide the required items of non-Federal participation.

Views of Federal and Regional Agencies.—The Department of the Interior supports the recommended plan, and the Environmental Protection Agency has stated it has no objections to the plan.

Status of Environmental Impact Statement.—Notice by the Environmental Protection Agency of the availability of the Final Environmental Impact Statement was published in the Federal Register on July 23, 1982.

Project Costs (estimated at October 1982 price levels):

Federal: $39,330,000.

Non-Federal: $18,068,000.

Benefit/Cost Ratio (7⅞ percent interest rate and 100-year economic life): 1.20.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way, relocations and a portion of recreational and fish and wildlife costs, as necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

ST. JOHNS BAYOU AND NEW MADRID FLOODWAY, MO.

Location.—In New Madrid, Scott, and Mississippi Counties in southeast Missouri, adjacent to the Mississippi River.

Authority for Report (Phase I General Design Memorandum).—Section 101(a) of the Water Resources Development Act of 1976.

Description of Recommended Plan.—After construction of all previously authorized improvements in the vicinity, approximately 32,000 acres in the New Madrid Floodway will still subject to flooding at a frequency of once in 100 years. In the St. Johns Bayou Basin, approximately 75,000 acres are subject to impounded runoff and about 35,000 acres are subject to flooding from headwater. About 2,500 acres in or near the city of Sikeston, including numerous residential, commercial and industrial buildings, and many streets and sewers, are subject to inundation.

Structural features of the recommended plan include channel improvements on about 136 miles of rural channel and 7.7 miles of urban channel, a 1,000 cubic-foot-per-second pumping station for the St. Johns Bayou area, and a 1500 cubic-feet-per-second pumping station for the New Madrid Floodway area. The right-of-way required for construction of the project consists of the purchase in fee of approximately 1,666 acres and the purchase of restrictive easements on 2,100 acres. To implement the project, it will be necessary to alter or relocate a number of utilities, 4 railroad bridges and 35 county, state, and interstate bridges.

Fish and wildlife mitigation measures included in the plan consist of the acquisition of 2,500 acres of land at Ten Mile Pond, restrictive easements along 2,100 acres of construction right-of-way, ponding on 4,900 acres for waterfowl, and construction of a fish pool weir. A 2.1-mile hiking and biking trail at Sikeston is also included.

Views of States and Non-Federal Interests.—The State of Missouri supports the recommended plan. The St. Johns Levee and Drainage District and the St. Johns Bayou Basin Drainage District have expressed their intent to provide the necessary items of non-Federal responsibility for the plan. Consolidated Drainage District No. 1 of Mississippi County, St. James Drainage District, Mississippi County, New Madrid County, and the City of Sikeston also support the plan.

Views of Federal and Regional Agencies.—The Department of the Interior has stated it does not object to the recommended plan. The Environmental Protection Agency has expressed some environmental reservations about the plan.

Status of Environmental Impact Statement.—The Final Supplement to the Environmental Impact Statement was filed with the Environmental Protection Agency on July 30, 1982.

Project Costs (estimated at October 1982 price levels):

Federal: $75,600,000.

Non-Federal: $32,412,000.

Benefit/Cost Ratio (7⅞ percent interest rate and 100-year economic life): 1.60.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way and relocations necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

Remarks.—Because the Environmental Protection Agency has expressed reservations regarding the recommended plan, the Committee directs that during the preconstruction planning the Corps will address all the items of concern raised by the Environmental Protection Agency, as well as the Department of the Interior.

In addition, the Committee has directed that lands for mitigation of damages to fish and wildlife expected to result from the project be acquired as soon as possible from available funds, including the Environmental Protection and Mitigation Fund established in Title XI.

BRUSH CREEK AND TRIBUTARIES, MISSOURI AND KANSAS

Location.—In the Kansas City Metropolitan Region, Missouri and Kansas.

Authority for Report.—Senate Public Works Committee resolution adopted March 9, 1971.

Description of Recommended Plan.—Urban flood protection is needed within the Brush Creek basin. The flood of record, in September of 1977, caused the loss of 12 lives and over $66 million in economic losses.

The recommended plan of improvement includes deepening the Brush Creek channel bottom beginning downstream of the Roanoke Road Bridge and continuing downstream about 7,500 feet to below the Troost Avenue Bridge. An open channel will replace the existing closed conduit between Oak and Locust Streets. The project will provide an increased level of protection to greater than the 100-year flood in nearly all project areas, and greater than the 500-year flood for some critical reaches. Future flood damages will be reduced 85 percent in the protected area.

The recommended plan includes 4 acres of project lands, plus 8 acres of land for the disposal of waste materials at a remote site. The Oak Street bridge will be removed and replaced. Two new pedestrian bridges will be required, along with some recreational trail replacements. Several utility lines will be relocated. The recommended plan also calls for the removal of the Kansas City Public Service Railway bridge. A flood warning system, which could provide 10 to 20 minutes of additional warning time will be included and landscaping and other esthetic treatments will be incorporated into plan features to minimize adverse visual impacts.

Views of States and Non-Federal Interests.—The State of Missouri has endorsed the recommended plan and has indicated the non-Federal share of the cost may be eligible under a state-wide funding procedure recently approved by Missouri voters. The State of Kansas has offered no objections to the plan. Kansas City, Missouri, has expressed its support for the plan.

Views of Federal and Regional Agencies.—The Environmental Protection Agency stated it had no objection to the recommended plan; however, the Department of the Interior expressed concerns regarding certain recreation and esthetic features of the project. The Corps has agreed to resolve these concerns in coordination with the Department of the Interior during final design of the project. The Mid-America Regional Council expressed concern that a railway bridge was to be removed, but not replaced at Federal expense.

Status of Environmental Impact Statement.—The Final Environmental Impact Statement was filed with the Environmental Protection Agency on May 14, 1982.

Project Costs (estimated at October 1982 price levels):

Federal: $12,100,000.[1]

Non-Federal: $3,662,000.[1]

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[1] These costs include $1,113,000 to be reimbursed by non-Federal interests to the United States pursuant to Section 302.

Benefit/Cost Ratio (7⅞ percent interest rate and 100-year economic life): 1.40.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way, and relocations necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

Remarks.—Although the existing Kansas City Public Service Railway bridge has not been used for over ten years, the Kansas City area Transportation Authority and the Mid-America Regional Council (the areawide A-95 review and comment agency for the Kansas City metropolitan region) have opposed removal of the railway bridge, as recommended in the plan of improvement. Accordingly, in the interests of facilitating regional public transportation, the Committee has directed that the Brush Creek project shall include replacement of that railway bridge if the Corps determines, before any future acquisition of any land for or the actual construction of the project, that appropriate non-Federal interests will use the bridge as part of a regional public transportation system in the ten-year period following initiation of the project.

CAPE GIRADEAU, MO.

Location.—In the City and County of Cape Girardeau, Missouri.

Authority for Report.—House Public Works Committee resolutions adopted April 11, 1974 and October 12, 1972, and Senate Public Works Committee resolution adopted May 24, 1966.

Description of Recommended Plan.—Flooding problems in the project area consist primarily of flash flooding in the various small watersheds, flooding from the Mississippi River, and flooding along the Little River Diversion Channel. Economic feasibility narrowed the study to flood control measures in the 21.4-square-mile Cape LaCroix Creek watershed. Under "without project" conditions, some 422 structures are affected by the 100-year flood in this watershed. Under projected "with project" conditions, 330 structures will enjoy full 100-year flood protection, and 92 will receive little or reduced damages.

The recommended plan of improvement includes one upstream detention reservoir, 1.89 miles of rectangular concrete channel, 2.46 miles of trapezoidal grass-lined earth channel, 8 bridge replacements, removal of 67 structures, acquisition of 250 acres of lands in fee for rights-of-way and improvements, 9 bridge replacements, one in-channel pooling structure, improvement to two existing fish ponds, and 12 miles of recreational and environmental trails.

Status of Environmental Impact Statement.—The St. Louis District Engineer determined that the proposed project would not have a significant impact on the quality of the human environment; therefore, an Environmental Impact Statement has not been prepared.

Project Costs (estimated at October 1982 price levels):

Federal: $24,700,000.

Non-Federal: $8,000,000.

Benefit/Cost Ratio (7⅞ percent interest rate and 100-year economic life): 1.43.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way, relocations and portion of the costs of recreational and fish and wildlife features, as necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

HALSTEAD, KANS.

Location.—In the City of Halstead, Kansas, about 25 miles north of Wichita, Kansas.

Authority for Report.—House Flood Control Committee resolution adopted June 21, 1944. Section 208 of Public Law 89-298, and House Public Works Committee resolution adopted May 5, 1966.

Description of Recommended Plan.—Flood protection for the entire city of Halstead is needed to protect against recurrent flooding from the Little Arkansas River. Flooding with a frequency of 100 years would inundate the entire city. The last major flood occurred in October of 1979.

The recommended plan of improvement includes the construction of about 21,600 feet of levee and floodwall in combination with clearing and snagging, widening, and straightening the channel of the Little Arkansas River to a bottom width of 60 feet in the vicinity of Halstead. A drainage structure, pumping plant, and ponding area will be provided on the south side of town. Two hundred seventy-three acres of land will be acquired for the project. A sliding gate will be provided for the Kansas Highway 89 Crossing and a swinging gate will be provided for the Atchison, Topeka, and Santa Fe Railway Crossing. Ramps will be built at all other road crossings. Recreational facilities including a parking lot, toilets, picnic tables, fireplaces, refuse cans, water and lighting, will be provided on the right-of-way around the perimeter of the ponding area. Ten pool-riffle areas will be developed within the channel to provide stream habitat for aquatic organisms and reproductive areas for fish species. In addition, the levee, floodwalls, channel, and borrow areas will be landscaped to enhance the environmental quality of the project. New plantings of grasses and trees will reduce erosion and water quality degradation and provide food, cover, and shade for fish and wildlife.

Views of States and Non-Federal Interests.—The State of Kansas has concurred in the recommended plan and has urged that the proposed project be authorized at the earliest possible date. The City of Halstead supports the project.

Views of Federal and Regional Agencies.—The Environmental Protection Agency originally expressed opposition to the project and rated the project environmentally unsatisfactory. The Environmental Protection Agency expected water quality degradation, wetland degradation and the contribution by the proposed action to result in the cumulative degradation of the water and related land resources of the Little Arkansas River Basin. After many meetings between the Environmental Protection Agency and the Corps, the environmentally unsatisfactory rating was conditionally retracted and the Environmental Protection Agency has stated that the action presently proposed represents a reasonable trade-off of environmental quality for flood protection for the city of Halstead.

The Department of the Interior stated that it preferred Alternative Plan IV, described in the District Engineer's report, which would involve less channelization than the recommended plan. The Department of the Interior also recommended additional measures to mitigate fish and wildlife losses expected to be caused by the project and recommended that the plan include measures to insure public access to the Little Arkansas River.

Status of Environmental Impact Statement.—The Final Environmental Impact Statement was filed with the Environmental Protection Agency on March 20, 1981.

Project Costs (estimated at October 1982 price levels):

Federal: $6,130,000.[1]

Non-Federal: $1,892,000.[1]

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[1] These costs include $524,000 to be reimbursed by non-Federal interests to the United States pursuant to Section 302.

Benefit/Cost Ratio (7⅞ percent interest rate and 100-year economic life): 1.08.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way, and relocations and a portion of the costs of recreational features, as necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

Remarks.—The Committee notes the concerns raised by the Department of the Interior in relation to the proposed Halstead project. Accordingly, in the interest of preserving environmental and recreational values, the Committee has directed that the project shall include the acquisition of additional lands for mitigation of fish and wildlife losses caused by the project and additional access points to the Little Arkansas River recommended by the Secretary, following a study made in conjunction with appropriate Federal, State and local agencies, of the need for additional mitigation lands and access points. The Secretary is required within one year to transmit to the House Committee on Public Works and

Transportation and the Senate Committee on Environment and Public Works a report of that study, along with recommendations for additional measures which the Secretary determines to be necessary and appropriate to mitigate the adverse effects of the project on fish and wildlife habitat. Except for funds from the Environmental Protection and Mitigation Fund established in Title XI, no appropriation shall be made for the acquisition of any interest in real property for, or the actual construction of, the Halstead project if that acquisition and actual construction have not been approved by resolution of the two Committees.

The City of Halstead is proposing to accomplish work on parts of the project as part of the city's local contribution. The city is contemplating performing work such as clearing brush and trees, land grading and improvement. Under Section 302(g)(2) of H.R. 3678, this work will be eligible to be included as part of the non-Federal contribution. The amount credited toward the non-Federal share is the value of the work accomplished by the city, measured at the time of project construction, since this is work which otherwise would have to be performed by the Corps of Engineers.

UPPER LITTLE ARKANSAS RIVER, KANS.

Location.—In central Kansas, about 15 miles north of Hutchinson, Kansas. The Upper Little Arkansas River Watershed consists of a 335 square-mile drainage area within the Little Arkansas River Basin above the confluence of Blaze Fork Creek and the Little Arkansas River.

Authority for Report.—House Flood Control Committee resolution adopted June 21, 1944; Section 208 of the Flood Control Act of 1965, Public Law 89-298; and House Public Works Committee resolution adopted May 5, 1966.

Description of Recommended Plan.—The standard project flood plain covers 65,000 acres along the main stem of the Little Arkansas River and tributaries in the Upper Little Arkansas River Watershed. Flooding on the lower elevations occurs, on the average, about twice a year, with less frequent occurrences on the remaining flood plain area. Floods have occurred as often as four times in one year. The majority of the flood plain is in crop production, although the most severely floodprone areas are used for pasture or are left in timber. In addition to extensive damage to farmsteads, lands, crops, roads, bridges, and utilities, flooding causes erosion which carries away valuable soil cover, causes lands to be less productive and endangers fish and wildlife. Average annual damages from flooding are estimated to be approximately $3.0 million in October 1982 prices. The last year major flood occurred in October of 1979.

The recommended plan includes 18 small earthfill dams similar to those often construction by the Soil Conservation Service of the Department of Agriculture in rural areas. These dams will range from 17 to 35 feet in height and from 425 to 3,750 feet in length. Grass spillways will range in width from 40 to 920 feet. All the dams will be in low-risk agricultural areas, and their primary purpose will be to reduce frequent flooding on agricultural lands. The dams will be designed for 10-year flood control storage and 100-year sediment volume. An easement of 100 acres of woody habitat will be acquired for mitigation of anticipated wildlife habitat losses. No public access will be provided at the dams and project areas. Dams and spillways will be fenced. To provide habitat for nesting birds, maintenance of the watershed structures (particularly mowing) will be held to a minimum, with no mowing until July 15 of each year. Watershed structures will be seeded with a mixture of tall, intermediate, and western wheat grass, alfalfa, and smooth brome mix. Flood plain zoning will be accomplished in the communities of Little River, Medora, and Buhler.

Views of States and Non-Federal Interests.—The Kansas State Board of Agriculture's Division of Water Resources, the Kansas Department of Economic Development, the Kansas Fish and Game Commission, the Kansas Department of Health and Environment, the Kansas State Historical Society, the Kansas Corporation Commission, the Kansas State Conservation Commission, the Kansas Energy Office, and the Kansas Water Office have all concurred in the plan recommended by the District and Division Engineers. The Upper Little Arkansas River Watershed District No. 95 has indicated its willingness to provide the necessary items of non-Federal participation for the project.

Views of Federal and Regional Agencies.—The Fish and Wildlife Service supports the plan. The Environmental Protection Agency has stated it has some reservations about the recommended plan and has requested that additional information be included in the Final Environmental Statement. This has been done. The Soil Conservation Service favors the recommended plan.

Status of Environmental Impact Statement.—The Draft Environmental Impact Statement was filed with the Environmental Protection Agency on June 12, 1981.

Project Costs (estimated at October 1982 price levels):

Federal: $8,190,000.[1]

Non-Federal: $7,462,000.

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[1] These costs include $728,000 to be reimbursed by non-Federal interests to the United States pursuant to Section 302.

Benefit/Cost Ratio (7⅞ percent interest rate and 100-year economic life): 1.40.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way, and relocations (except railroads) necessary for the project's construction. Non-Federal interests will also be required to assure maintainence and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

ROCK RIVER, ILL.

Location.—In Loves Park, Winnebago County, Illinois, adjacent to the northeast boundary of Rockford, Illinois, and about 17 miles south of the Illinois-Wisconsin state border.

Authority for Report.—House Public Works Committee resolution adopted December 2, 1971.

Description of Recommended Plan.—The major water resources problem identified for Loves Park was recurrent flooding of residences, buildings, and other facilities due to inadequate storm drainage and overflows from the Large and Small Unnamed Creeks. The most recent floods in the area occurred in 1973, 1974, 1975 and 1978.

Because of Corps of Engineers policy concerning drainage areas of less than 1.5 square miles, the recommended plan for the Small Unnamed Creek was determined to be a storm drainage improvement, which was considered by the Corps to be a local responsibility.

The recommended plan of improvement for the Large Unnamed Creek includes 15,500 linear feet of concrete channel and 2,400 linear feet of riprap channel, a 75,000 gallon-per-minute pumping plant, 90 acres of ponding area to accommodate 320 acre-feet of storage and 2,500 linear feet of 5-foot levee. The recommended plan would prevent all damages from overbank flooding up to a 100-year frequency flood event and would reduce average annual flood damages by 97 percent.

The recommended plan would require a total of 124.4 acres of right-of-way, of which 34.4 acres would be for the channel and 90 acres for storage. Utility relocations will be negligible. Within the protected area, 5,013 acres are occupied by residences, businesses, and industry.

Views of States and Non-Federal Interests.—The State of Illinois supported the recommended plan of improvement for Large Unnamed Creek; however, the State indicated it would prefer Federal participation in improvements to Small Unnamed Creek, which had been determined by the Corps to be the responsibility of local interests. The City of Loves Park has indicated its willingness to provide the required items of non-Federal participation.

Views of Federal and Regional Agencies.—The Department of the Interior did not oppose the plan, but recommended that the project's impact on the existing recreational resource base be considered during preconstruction planning. The Environmental Protection Agency has not objected to the recommended plan.

Status of Environmental Impact Statement.—The Final Environmental Impact Statement was filed with the Environmental Protection Agency on March 14, 1980.

Project Costs (estimated at October 1982 price levels):

Federal: $25,000,000.[1]

Non-Federal: $6,992,000.[1]

Benefit/Cost Ratio (7⅞ percent interest rate and 100-year economic life): 1.10.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way, and relocations necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

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[1] These costs include $1,822,000 to be reimbursed by non-Federal interests to the United States pursuant to Section 302.

Remarks.—The Small Unnamed Creek drains approximately 1.1 square miles, all within the city limits of Loves Park. Because of the limited size and streamflow of the Small Unnamed Creek drainage area, the Corps determined that improvements for flood control did not fall within the purview of the Corps for that portion of the study area, and that any flood control improvements on the Small Unnamed Creek would be a local responsibility.

The Committee has directed that the project shall include flood protection measures along Small Unnamed Creek, as described in the Interim Report of the District Engineer. In Section 1159 the Committee has directed that in the preparation of feasibility reports for flood control projects in urban areas the Corps shall consider and evaluate measures to reduce or eliminate damages from flooding without regard to frequency of flooding or the amount of runoff. Requiring the Federal flood control improvements for Small Unnamed Creek described in the District Engineer's Interim Report will make the authorization for this project consistent with the policy established in section 1159.

The Committee has also included the requirement that before acquisition of land for, or actual construction of, the project, the Secretary shall study the probable effects of the project on existing recreational resources in the project area and, as part of the project, shall undertake such measures as he determines necessary and appropriate to mitigate any adverse effects on such recreation resources.

GREEN BAY LEVEE AND DRAINAGE DISTRICT NO. 2, IOWA

Location.—Along the Mississippi River, Skunk River, and Lost Creek, in Lee County, Iowa, between the Cities of Burlington and Fort Madison, Iowa.

Authority for Report.—House Public Works Committee resolution adopted December 11, 1969.

Description of Recommended Plan.—The existing project in the Green Bay Levee and Drainage District No. 2 protects 13,400 acres of agricultural lands from floods of up to a 50-year chance of occurrence. The present protection consists of earth levees, drainage facilities, and road ramps. In spite of the existing project, there remains a residual flooding threat from the Mississippi River, Skunk River and Lost Creek, resulting in recurring flood damage. Damage occurs mainly to agricultural lands, although a large fertilizer plant is also located within the district.

Under the recommended plan of improvement, about 17.2 miles of existing levee along the Mississippi River and flank levees along the Skunk River and Lost Creek will be raised about 4 feet. The levee improvement will protect 1,700 acres of industrial and 11,900 acres of agricultural land from a 500-year flood, and decrease annual flood damages by about 89 percent. Other features of the recommended plan include road and drainage ditch relocations, modification of discharge lines from the existing pump plant, and beautification and mitigation measures.

About 52 acres of agricultural land adjacent to the toe of the existing levee will be needed for the expanded levee and relocation of adjacent roads and drainage ditches. No homes or other structures will be relocated.

Beneficial environmental effects will result from the protection provided for the land and the protection of the Mississippi River from possible contamination by chemicals that could be released if the fertilizer plant located within the district were flooded.

Views of States and Non-Federal Interests.—The State of Iowa has expressed support for the recommended plan. The Green Bay Levee and Drainage District No. 2, has indicated its willingness to provide the necessary items of non-Federal participation.

Views of Federal and Regional Agencies.—The Department of the Interior and the Environmental Protection Agency concur in the recommendation of the District and Division Engineers; however, they disagree with the recommendation of the Board of Engineers for Rivers and Harbors that levee material be obtained from the main channel of the Mississippi River rather than from an island area in the River.

Status of Environmental Impact Statement.—The Final Environmental Impact Statement was filed with the Environmental Protection Agency on October 21, 1980.

Project Costs (estimated at October 1982 price levels):

Federal: $5,500,000.[1]

Non-Federal: $1,585,000.[1]

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[1] These costs include $725,000 to be reimbursed by non-Federal interests to the United States pursuant to Section 302.

Benefit/Cost Ratio (7⅞ percent interest rate and 100-year economic life): 1.09.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way, and relocations necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

Remarks.—The Committee has incorporated the recommendations of the District Engineer that borrow material be obtained from the Island source, rather than from the bottom of pool 19 as recommended by the Board of Engineers for Rivers and Harbors, in order to protect the feeding area and habitat of the diving ducks which frequent the area. The pool is a major feeding area for a large percentage of the North American population of canvasback ducks. During migration season, as much as one half of this population uses the pool.

SOUTH QUINCY DRAINAGE AND LEVEE DISTRICT, ILL.

Location.—In the Mississippi River flood plain between river miles 318.5 and 325.5, immediately downstream from the City of Quincy, Illinois.

Authority for Report.—House Public Works Committee resolution adopted December 11, 1969.

Description of Recommended Plan.—The existing flood control project in the South Quincy Drainage and Levee District protects 5,800 acres of agricultural and commercial/industrial lands against a 50-year frequency flood. The protection consists of levees, drainage facilities, and road ramps. In spite of the existing project, there remains a residual flooding threat from the Mississippi River, Curtis Creek and Mill Creek, resulting in recurring damage. The most recent major flood event in this area occurred in 1973, causing damages of $1.2 million within the District. Damages occur mainly to commercial/industrial facilities, although a large agricultural area is also adversely affected.

The recommended plan involves raising existing levees about 3.5 feet. The mainstem Mississippi River levee will be raised with hydraulic fill and the flank levees along Curtis and Mill Creeks will be raised with impervious material from remote borrow areas. Concrete floodwalls will be used in the confined area of Curtis Creek. A concrete cap will be provided on an existing transfer sewer. Associated features of the recommended plan include raising and resurfacing existing road ramps, ramping State Highway 57 at the Mill Creek flank levee crossing, constructing a railroad closure structure at the Curtis Creek flank levee crossing, and modifying the discharge lines at the existing pumping plant. The plan will reduce annual flood damages by 87 percent.

About 55 acres of land will be required for rights-of-way, of which 47 acres are in cropland, the remainder being in a natural or seminatural condition. Material for the Mississippi River mainstem levee will be obtained from selected backwater slough areas of the Mississippi River. The flank levees along Mill and Curtis Creeks will be raised with semicompacted clay fill obtained from borrow areas along Mill Creek or from the bluff east of Highway 57.

Views of States and Non-Federal Interests.—The South Quincy Drainage and Levee District has indicated its willingness to provide the necessary items of non-Federal participation.

Status of Environmental Impact Statement.—The Final Environmental Impact Statement was filed with the Environmental Protection Agency on July 8, 1983.

Project Costs (estimated at October 1982 price levels):

Federal: $10,100,000.[1]

Non-Federal: $2,596,000.[1]

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[1] These costs include $2,289,000 to be reimbursed by non-Federal interests to the United States pursuant to Section 302.

Benefit/Cost Ratio (7⅞ percent interest rate and 100-year economic life): 4.80.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way, and relocations necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

Remarks.—The Committee is aware of the environmental concerns and recommendations regarding this project raised by the Fish and Wildlife Service. Accordingly, in the interest of protecting environmental values, the Committee has directed that the Corps shall, to the extent feasible, obtain borrow material from sites in the main channel of the Mississippi River and place fill material on the landward side of the existing levee in order to protect wildlife habitat.

NORTH BRANCH OF CHICAGO RIVER, ILL.

Location.—In Cook and Lake Counties, Illinois, immediately north of the City of Chicago, within the metropolitan area.

Authority for Report (Phase I General Design Memorandum).—Section 126 of the Water Resources Development Act of 1976.

Description of Recommended Plan.—Overbank flooding is a serious problem in the North Branch Chicago River watershed, and the problem is increasing with continued urbanization. Average annual flood damages, based on existing conditions, are estimated at $1,880,000. Average annual damages for projected year 2010 conditions, which include the Techny reservoirs constructed by the Metropolitan Sanitary District of Greater Chicago, are estimated at $6,142,000. The average annual floodwater damages, reflecting both the existing conditions and conditions projected to exist in the year 2010 are estimated at about $4,280,000. Damage occurs primarily to residential property.

The Phase I General Design Memorandum study reviewed an existing plan for urban flood damage reduction in the North Branch Chicago River watershed that was originally developed by the Soil Conservation Service (SCS) of the U.S. Department of Agriculture, working in cooperation with the Metropolitan Sanitary District of Greater Chicago (MSDGC) and two local steering committees—local Flood Control Steering Committee for the North Branch Chicago River (Cook County) and North Branch Chicago River Flood Control Steering Committee (Lake County).

Local interests have continually stressed their support of only the SCS/MSDGC plan and strongly opposed any reformulation of that plan. In view of the specific wording of the study authorization and the strong desires of local interests, the Corps of Engineers limited its Phase I General Design Memorandum study to a "reaffirmation" type of investigation. The focus of the study was to determine whether implementation of the proposed floodwater management plan warrants Federal participation, based on the Water Resources Council's formulation and evaluation criteria and guidelines.

The SCS/MSDGC plan included both structural and non-structural flood damage reduction measures. The primary structural features consisted of a series of nine excavated floodwater storage reservoirs located at seven sites. Reservoirs nos. 27, 29, 32A, 32B and 32C were located on the West Fork of the North Branch Chicago River; reservoirs nos. 15 and 18 on the Middle Fork; and reservoirs nos 4 and 7 on the Skokie River. The SCS/MSDGC plan also included modifications to the existing Willow Road dam on the Skokie River.

Reservoirs nos. 32A, 32B, and 32C, known as the Techny reservoirs, have been constructed by the MSDGC. Reservoir site no. 7 has been developed and is no longer available for flood control purposes. Reservoirs nos. 4, 15, 18, 27, and 29, and the Willow Road dam modifications have not been constructed.

The plan recommended in the Draft Report of the District Engineer provides for construction of three excavated flood water storage reservoirs including reservoir no. 15 on the Middle Fork and reservoirs nos. 27 and 29 on the West Fork.

Views of States and Non-Federal Interests.—Local interests have consistently indicated support for the SCS/MSDGC plan, portions of which are reaffirmed in the recommended plan of the Corps. The Illinois Department of Transportation and the Metropolitan Sanitary District of Greater Chicago favor the implementation of the recommended plan, but also favor Federal participation in the construction of reservoirs 4 and 18, which are not included in the recommended plan.

Views of Federal and Regional Agencies.—The Environmental Protection Agency has stated it has no objection to the recommended plan.

Status of Environmental Impact Statement.—The Draft Final Environmental Impact Statement was filed with the EPA on June 10, 1983.

Project Costs (estimated at October 1982 price levels):

Federal: $11,209,000.[1]

Non-Federal: $3,422,000.[1]

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[1] These costs include $943,000 to be reimbursed by non-Federal interests to the United States pursuant to Section 302.

Benefit/Cost Ratio (7⅞ percent interest rate and 50-year economic life): 1.70.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way, and relocations necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

Remarks.—In recognition of the flood damage prevention benefits provided in the North Branch of the Chicago River, by the Techny Reservoirs constructed by non-Federal interests on the West Fork of the North Branch of the Chicago River, the Committee has directed that the Secretary shall reimburse non-Federal interests for an amount equal to 75 per centum of the costs of planning and construction of those reservoirs. This is the percentage of the Federal share for local flood protection projects established in Section 302.

LITTLE CALUMET RIVER, IND.

Location.—In Lake County in northwestern Indiana.

Authority for Report (Phase I General Design Memorandum).—Section 101 of the Water Resources Development Act of 1976.

Description of Recommended Plan.—Floodwater damage is a problem along the Little Calumet River corridor and is increasing with continued urbanization and floodplain development. Existing levees built by the local communities have created a sense of security from flooding, which has lead to new residential development in recent years. The greatest flood that has occurred in recent years was in June 1981. Average annual flood damages, under existing conditions, are estimated to total $8.7 million.

The Black Oak residential area of Gary suffers from overbank flooding from the Little Calumet River and excessive wetness and high groundwater levels from impaired drainage. This flooding contributes to public health problems, since this area is served by individually-owned septic tank soil absorption systems and drinking wells. The poor drainage also encourages the breeding of the St. Louis encephalitis mosquito vector.

The Little Calumet River corridor contains 1,396 acres of wetlands which serve as storage areas of floodwaters and as habitat for many terrestrial wildlife species. including many species of concern to the State of Indiana. Preservation of the existing wetlands in the project area has been identified as desirable by Federal, state and local agencies and by local environmental groups.

The recommended plan includes replacing and expanding the existing levees between the State line and Cline Avenue. A flanking floodwall will extend along the State line to terminate the western end of the levee system. Limited channel dredging will extend from Indianapolis Boulevard to Kennedy Avenue. A series of set-back levees will provide protection to the developed areas in the Gary reach. Structures not within the leveed areas would be provided with nonstructural floodproofing measures. The open space lands and wetlands within the floodplain will be converted to public ownership for use as overbank floodwater storage, for wetland preservation, and for general recreation.

The recreational features of the recommended plan include constructing six recreation areas containing picnicking, canoe launching, nature interpretation, hunting instruction and intensive play facilities. A hiking trail will extend between the State line and the Penn Central Railroad. The wetlands will be managed to improve wildlife habitat.

The levee system will consist of a combination of earthen levees and concrete floodwalls, designed to provide a 200-year level of protection. Closure structures will be placed at all crossings except at Columbia Avenue and Indianapolis Boulevard, where the roads will be raised. New culverts will be constructed at Grant Street, Georgia Street, and I-80/94. The C&O, Erie Lackawanna, and Burr Street bridges will be removed. The set-back levees in the Gary reach will be provided with 3 feet of overburden to allow landscape plantings. Two existing pumping stations will be expanded. A new pumping station will be placed in the Black Oak levee system. A channel with a bottom width of 30 feet will be constructed between Chase Street and the Penn Central Railroad. A control structure to regulate flows into Illinois will be placed at the Hart Ditch confluence. The Hart Ditch control structure will consist of a 3-gated structure with an emergency ogee spillway to control the westerly flows. A small weir will divert all low flows from Hart Ditch to the west. A variable weir-type structure near the Penn Central Railroad will control the water surface elevations in the wetlands.

A total of 1,801 acres of permanent right-of-way land and an additional 60 acres of temporary construction easements will be needed. No residential relocations are needed. The State of Indiana has already acquired 960 acres for the project. About 900 additional acres for the project are already in municipal or county ownership.

Approximately 1,000 acres of undeveloped lands will be converted to permanent overbank floodwater storage, wetland preservation, and recreational use. About one-half of these acres are already in public recreational use.

Thirty-four residential structures will be floodproofed by brick facing with closures, low berms or closures. Twenty-two commercial structures will be provided with similar measures. The level of floodproofing protection will be for a 100-year flood.

The recommended Hart Ditch control structure will consist of two 20-foot wide tainter gates and a 40-foot wide ogee overflow section. The discharge from the Little Calumet River under project conditions will not be allowed to vary from the preproject condition discharge at the State line.

Mitigation for the loss of wetlands will be accomplished by increasing the habitat value in the remaining wetlands through wetland management measures. This mitigation will be in-kind and will be accomplished totally on project lands. The wetland management measures will include creating potholes for open water areas, providing wood duck nest boxes, and creation and maintenance of natural habitat. The wetland water levels during dry periods will be maintained by a weir control structure. Natural habitat areas will be increased or replaced by selective levee plantings.

Floodplain zoning ordinances that meet the requirements of the National Flood Insurance Program (NFIP) have been enacted by all municipalities along the river corridor, and those municipalities will continue to participate in the NFIP.

Views of States and Non-Federal Interests.—The State of Indiana Department of Natural Resources has supported the recommended plan and recommends its implementation. The Little Calumet River Basin Development Commission stated that the recommended plan is a feasible technical solution, that it is cost-effective and affordable, and that it is sensitive to the environmental, social, and political concerns in the area. The Commission has expressed its willingness to provide the necessary items of non-Federal participation.

Views of Federal and Regional Agencies.—The Environmental Protection Agency indicated that it had no objections to the recommended plan's environmental impact and that the recommended plan appeared to have beneficial environmental impacts that would substantially mitigate any of the anticipated adverse impacts.

Status of Environmental Impact Statement.—The Draft Environmental Impact Statement was filed with the Environmental Protection Agency on May 13, 1972.

Project Costs (estimated at October 1982 price levels):

Federal: $56,800,000.[1]

Non-Federal: $19,791,999.[1]

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[1] These costs included $791,000 to be reimbursed by non-Federal interets to the United States pursuant to Section 302.

Benefit/Cost Ratio (7⅞ percent interest rate and 100-year economic life): 1.30.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way, relocations, and a portion of the costs of recreational and fish and wildlife mitigation features, as necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault of negligence of the United States or its contractors.

Remarks.—In 1978 the U.S. Department of Agriculture, Soil Conservation Service (SCS) in cooperation with the Metropolitan Sanitary District of Greater Chicago and the Illinois Department of Transportation completed a study of the Illinois portion of the Little Calumet River. The study was conducted under authority of the Watershed Protection and Flood Prevention Act, Public Law 566, 83rd Congress. That study concluded that floodwater damage is a major watershed problem and is increasing due to urbanization and flood plain encroachment. A Watershed Plan was developed to provide watershed protection and environmental enhancement through an accelerated land treatment program; to reduce flood damages by implementing floodwater retarding structures, channel work, stream channel maintenance and floodproofing; and to provide increased water-based recreation. Nonstructural measures included in the SCS Watershed Plan will consist of a floodproofing program and a channel maintenance program. Also to be provided are sample specifications and standards for floodproofing measures.

The SCS Watershed Plan was submitted to the 97th Congress for authorization, and was authorized by House Public Works and Transportation Committee resolution adopted August 23, 1982, and Senate Environment and Public Works Committee resolution adopted July 11, 1982. The Corps project authorized in the bill is to be implemented in conjunction with the SCS Watershed Plan.

PERRY CREEK, IOWA

Location.—In Sioux City, Iowa

Authority for Report.—House Flood Control Committee resolution adopted December 8, 1944, and House Public Works Committee resolution adopted October 10, 1974.

Description of Recommended Plan.—Although it has been over 30 years since the last major flood, a potential for major flood damages exists along Perry Creek within Sioux City; the expected annual damages are estimated to be $3,993,000 per year. The flood of record occurred in 1944, and the last major flood occurred in 1949, when three floods occurred during a 30-day period.

The recommended plan includes channel improvements extending downstream from Stone Park Boulevard approximately 12,000 feet to the existing conduit entrance. A parallel conduit will be constructed under Water Street and will extend from the improved channel downstream approximately 4,000 feet to the Missouri

River. The improved channel and the parallel conduit will carry the 100-year flood and reduce expected annual damages by 88 percent, providing an estimated $3,665,000 in flood control benefits annually.

Approximately 12,000 feet of biking and jogging trails will be constructed along the improved channel, and mitigation for fish and wildlife habitat losses will be provided by 35 acres of native grass, 13 acres of tree plantings and construction of 5 in-stream ramp structures for stream habitat improvement.

Local interests will continue existing flood plain management measures, including flood-proofing future development, participating in the Federal Flood Insurance Program upstream from Stone Park Boulevard, and using an existing flood warning system.

Views of States and Non-Federal Interests.—The Iowa Natural Resources Council concurs in the recommended plan and urges its early implementation.

Views of Federal and Regional Agencies.—The Department of the Interior stated it had no objection to the recommended plan and that the plan would produce a balanced project of great benefit to Sioux City. The Environmental Protection Agency had no objection to the recommended plan.

Status of Environmental Impact Statement.—The Final Environmental Impact Statement was filed with the Environmental Protection Agency on August 14, 1981.

Project Costs (estimated at October 1982 price levels):

Federal: $28,630,000.

Non-Federal: $12,332,000.

Benefit/Cost Ratio (7⅞ percent interest rate and 100-year economic life): 1.10.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way, relocations and a portion of the costs of recreational facilities, as necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

MUSCATINE ISLAND, IOWA

Location.—On the Mississippi River flood plain in Muscatine and Louisa Counties, Iowa, adjacent to the community of Muscatine, Iowa.

Authority for Report.—House Public Works Committee resolution adopted December 11, 1969.

Description of Recommended Plan.—The existing flood control project in the Muscatine Island Levee District and Muscatine-Louisa County Drainage District No. 13 protects approximately 26,478 acres of agricultural land, about 1½ square miles of the downstream portion of the city of Muscatine, a small airport, and railroad switching yards. In spite of the existing project, there remains a threat of residual flood damages from the Mississippi River and Michael Creek, with the potential for flood damage estimated at $5,393,000 annually. Flood damage occurs to urban and rural homes, urban businesses, industrial development, and rural agricultural areas.

The recommended plan of improvement will provide protection from the standard project flood by raising about 15 miles of existing levee about 4 feet with hydraulic sandfill and concrete floodwalls. The project will protect 30,700 acres of agricultural land and a commercial/industrial area on the south side of Muscatine. The discharge pipes of the existing pumping plant will be raised over the new levee. Average annual damages will be reduced by 92 percent.

Lands required for expansion of the levee and for realignment of adjacent roads and drainage ditches total 55 acres. No residents will be displaced by the project, and no major structures will require relocation.

Views of States and Non-Federal Interests.—The State of Iowa supports the project. The Muscatine Island Levee Commission has agreed to provide the necessary items of non-Federal participation.

Views of Federal and Regional Agencies.—The Department of the Interior has raised concerns regarding the project's impact on an endangered species of freshwater mussel (lampsilis hugginsi) and other benthic organisms. The Department recommends obtaining material for the levee raise from upland areas. The Environmental Protection Agency has raised concerns regarding the quality of the interior draining water that will be impounded by the project and discharged into the Mississippi River, and has recommended that the Corps examine the possibility of preserving Spring Lake as part of the project.

Status of Environmental Impact Statement.—The Draft Environmental Impact Statement was filed with the Council on Environmental Quality on February 18, 1975.

Project Costs (estimated at October 1982 price levels):

Federal: $12,500,000.[1]

Non-Federal: $3,275,000.[1]

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[1] These costs include $2.675,000 to be reimbursed by non-Federal interests to the United States pursuant to Section 302.

Benefit/Cost Ratio (7⅞ percent interest rate and 100-year economic life): 2.20.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way, and relocations necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

Remarks.—The Committee notes the environmental concerns regarding the recommended plan that have been raised by the Department of the Interior and the Environmental Protection Agency. Accordingly, in the interest of protecting environmental values, the Committee has directed the Corps to reexamine the drainage system in the recommended plan and to examine the feasibility of obtaining material for the levee from upland rather than aquatic sources, in order to minimize adverse effects on fish and wildlife habitat. Within one year the Corps is required to transmit to the Committee on Public Works and Transportation of the House and the Committee on Environment and Public Works of the Senate a report of what reexamination, along with recommendations for modifications to the project which the Secretary determines to be necessary and appropriate to minimize adverse effects of the project on Spring Lake and on fish and wildlife habitat. Except for funds from the Environmental Protection and Mitigation Fund established in Title XI, no appropriation shall be made for the acquisition of any interest in real property for, or the actual construction of, the Muscatine Island project of that acquisition and actual construction have not been approved by resolutions of the two Committees.

DES MOINES RIVER BASIN, IOWA AND MINN.

Location.—In West Des Moines, Iowa, and an adjacent portion of Des Moines, Iowa.

Authority for Report.—Senate Commerce Committee resolution adopted July 10, 1945, and House Public Works Committee resolution adopted July 1, 1958.

Description of Recommended Plan.—Flood damage protection is needed for the community of West Des Moines and a portion of the City of Des Moines, Iowa. Flooding in the area was experienced in 1903, 1947, 1965 and 1969. Of these, the fist two floods were the msot damaging.

The recommended plan of improvement includes about 5 miles of new and improved levees and 600 feet of concrete floodwall. These improvements will provide standard project flood protection which will reduce flood damages by 100 percent in the protected area. The average height of protection will be 14 feet, with a maximum of 24 feet. Eight closure structures are planned across three streets and five railroad tracks. Three stormwater pumping stations, 3 ponding areas, and 12 gravity outlets will be included. A flood warning system is also recommended. The recommended plan will provide flood protection to 922 residential, 143 commercial, 22 industrial and 14 public structures, on a total of 927 acres. For recreation, the plan includes bicycle paths, a boat ramp, fishing piers, and a small park.

The recommended plan will require about 142 acres for rights-of-way and ponding areas and 44 acres for borrow area. Sanitary sewers, waterlines, powerlines, and telephone lines will need to be relocated.

The most significant environmental impacts of the recommended plan are a short-term aquatic impact in Walnut Creek the loss of 22 acres of existing vegetation and wildlife habitat along the proposed levee alignment, and the loss of 44 acres of existing agricultural land for borrow material.

Views of States and Non-Federal Interests.—The State of Iowa concurred in the recommended plan and requested that further consideration be given to minimizing adverse effects along Jordan and Walnut Creeks in post-authorization studies. The cities of West

Des Moines and Des Moines have indicated their intent to provide the necessary items of non-Federal participation.

Views of Federal and Regional Agencies.—The Environmental Protection Agency stated it had no objection to the recommended plan. The Department of the Interior raised concerns regarding the recoverability of existing sand and gravel resources with the project in place.

Status of Environmental Impact Statement.—A Final Environmental Impact Statement was filed with the Environmental Protection Agency on July 20, 1979.

Project Costs (estimated at October 1982 price levels):
Federal: $11,200,000.[1]
Non-Federal: $3,849,000.[1]

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[1] These costs include $649,000 to be reimbursed by non-Federal interests to the United States pursuant to Section 302.

Benefit/Cost Ratio (7⅞ percent interest rate and 100-year economic life): 1.60.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way, relocations, and a portion of the costs of recreational facilities, as necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

Remarks.—The Committee notes the concerns raised by the State of Iowa in its comments on the recommended plan. Accordingly, the Committee has directed that before the acquisition of any interest in real property for or the actual construction of the project, the Secretary shall, in consultation with appropriate Federal, State, and local agencies, study the feasibility of minimizing increased flood stages along Jordan Creek in the vicinity of the Chicago, Rock Island and Pacific Railroad Bridge and the implementation of nonstructural and structural flood plain management techniques along the reach of Walnut Creek, including the improvement of channel capacity in the vicinity of Grand Avenue. In addition, the Secretary shall, in consultation with appropriate Federal, State, and local agencies, review the location of river access points and boat ramps. The Secretary is authorized to undertake such additional measures he determines necessary to carry out the results of that study and review.

REDWOOD RIVER, MINN.

Location.—In southwestern Minnesota, approximately 150 miles southwest of Minneapolis, Minnesota, 90 miles west of Mankato, Minnesota, and 90 miles northeast of Sioux Falls, South Dakota.

Authority for Report.—Section 216 of the River and Harbor Act of 1970.

Description of Recommended Plan.—The recommended plan of improvement will provide flood damage reduction for the City of Marshall from recurrent flooding by the Redwood River. The Corps of Engineers constructed a flood control project in 1963 to protect

Marshall against a flood with a peak discharge of 6,500 cubic feet per second. Unfortunately, the existing project does not function as intended. The upstream and downstream channels lack adequate capacity to convey the design flow to and from the existing diversion channel without creating damaging overbank and backwater effects. Upstream overflows overtop a county highway at about one-half the design discharge, bypass the diversion control structure, and flood the entire intercity area. An emergency barrier was constructed along the county highway to avert major damages during the 1969 flood; however, legal claims resulting from floodwater retention and induced diversion of flow to the Cottonwood River resulted in payments by the city of $204,000 to affected property owners. A recurrence of the 1969 flood without emergency measures would cause damages of about $10 million and would flood about 1,370 residential, commercial, and public buildings.

The recommended plan consists of improvements upstream and downstream of the existing project. The upstream measures include 1.9 miles of levees, 0.7 miles of channel improvement, an overflow structure, and 71 acres of floodway acquisition. The downstream improvements consist of 1.5 miles of levee, 0.3 miles of channel improvement, and interior drainage facilities. Areas where flood damages will be reduced include scattered residential, agricultural, and vacant lands in the upstream reach; nearly 300 acres of the highly developed central portion of the city; and agricultural, residential, public (mostly Southwest State College), and commercial property in the downstream area. The recommended plan will reduce average annual flood damages at Marshall by about 72 percent.

The recommended plan provides for recreational facilities including a 5.2 mile biking and walking trail, a 5.7 mile cross-county ski trail, trail head improvements, a rest stop at the existing softball complex, and picnicking facilities at Justice Park.

An estimated 119.8 acres of land, including 41 acres of wooded land and 32 acres of cropland, will be required for the project. The conversion of 4.2 acres of wooded land and 28.2 acres of undeveloped land is expected to result in some permanent adverse effects on small mammals. The channel widening and bank protection measures will have short-term adverse effects on small mammals, amphibians, the limited stream fishery, and other aquatic fauna; however, many of these biological communities are expected to repopulate the area when the construction activities cease. Regular maintenance of the project, such as the mowing of levees, will permanently suppress species that formerly occupied these areas; however, the proposed acquisition of 71.1 acres of floodplain for floodway purposes will provide a long-term beneficial environmental impact by preserving the natural area from future encroachments. The recommended plan's proposed works will provide a balance between adverse environmental impacts and the need for effective flood damage reduction at Marshall.

Views of States and Non-Federal Interest.—The State of Minnesota supports the recommended plan. The City of Marshall has confirmed its continuing support for this project and has indicated its willingness to provide the necessary items of non-Federal participation.

Views of Federal and Regional Agencies.—The Environmental Protection Agency raised concerns about diverting Redwood River excess overflows into the Cottonwood River Basin and other environmental concerns. The department of the Interior questioned the recommended plan's compliance with Executive Orders 11988 and 11990, dealing with floodplain management and wetlands protection, respectively, and recommended consideration of an alternative highway raise. After examining that alternative plan and a similar, less costly, alternative, the District Engineer, Division Engineer, and Board of Engineers for Rivers and Harbors, each concluded that the recommended plan best satisfies the Corps' planning objectives and is consistent with Executive Orders 11988 and 11990.

Status of Environmental Impact Statement.—The Final Environmental Impact Statement was filed with the Environmental Protection Agency on May 18, 1981.

Project Costs (estimated at October 1982 price levels):

Federal: $3,130,000.[1]

Non-Federal: $1,132,000.[1]

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[1] These costs include $386,000 to be reimbursed by non-Federal interests to the United States pursuant to Section 302.

Benefit/Cost Ratio (7⅞ percent interest rate and 50-year economic life): 1.40.

Non-Federal Responsibilities.—The City of Marshall will be required to provide lands, easements, rights-of-way, relocations and a portion of the costs of recreational features, as necessary for the project's construction. The City will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

ROOT RIVER BASIN, MINN.

Location.—In southeastern Minnesota, about 60 miles southeast of Rochester, Minnesota, and 140 miles southeast of Minneapolis.

Authority for Report.—Section 6 of the Flood Control Act of 1936; Section 5 of the Flood Control Act of 1937; and Section 11 of the Flood Control Act of 1946.

Description of Recommended Plan.—Flooding occurs in the Root River Basin at least once a year, usually during the spring due to a combination of melting snow and rainfall. The communities and agricultural lands in the lower half of the basin are the main areas affected. Other problems identified include erosion sedimentation and water quality.

The recommended plan of improvement includes approximately 3.1 miles of levee, 0.2 miles of road raise, an interior drainage pumping station with necessary collection works for seepage and surface runoff, road and railroad stoplog closures, and a railroad sandbag closure. Benefits to be derived include tangible flood damage reduction and intangible benefits from decreased threat to human life and public health. The plan will reduce annual flood damages by 86 percent and reduce disruption of community life on

306 urban acres, including 340 households and 76 businesses at Houston, Minnesota.

Views of States and Non-Federal Interests.—The State of Minnesota supports the recommended plan. The City of Houston, Minnesota, has indicated its willingness to provide the necessary items of non-Federal participation.

Views of Federal and Regional Agencies.—The Environmental Protection Agency stated it had no objection to the recommended plan and the Department of the Interior raised no objections to the plan.

Status of Environmental Impact Statement.—The Final Environmental Impact Statement was filed with the Environmental Protection Agency on December 11, 1978.

Project Costs (estimated at October 1982 price levels):

Federal: $8,150,000.[1]

Non-Federal: $2,063,000.[1]

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[1] These costs include $1,955,000 to be reimbursed by non-Federal interests to the United States pursuant to Section 302.

Benefit/Cost Ratio (7⅞ percent interest rate and 100-year economic life): 1.80.

Non-Federal Responsibilities.—Non-federal interests will be required to provide lands, easements, rights-of-way, and relocations necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

SOUTH FORK ZUMBRO RIVER, MINN.

Location.—Rochester, Minnesota, is located in the lower portion of the South Fork Zumbro River Watershed in southeastern Minnesota, about 70 miles south of St. Paul-Minneapolis.

Authority for Report (Phase I General Design Memorandum).—Section 1(a) of the Water Resources Development Act of 1974.

Description of Recommended Plan.—More than a third of the City of Rochester lies within the South Fork Zumbro River floodplain. Potential damages from a flood having a frequency of occurrence of once in 100 years (the design flood) is estimated to be more than $101.7 million under present conditions, posing a severe threat to the life and security of the residents.

The recommended plan of improvement includes deepening and widening the channels of the South Fork Zumbro River, Bear Creek, and Cascade Creek in the city of Rochester and the construction of two short levees. The plan will provide flood damage protection from the 100-year flood for 2,200 residences, 200 businesses, 21 industries and 10 public buildings in Rochester.

Under the recommended plan, the crest of Silver Lake Dam will be lowered and a bascule gate installed to pass floodwaters. The Nelson Dam at the power plant will be removed.

A total of 9.3 miles of river and stream channels will be widened and deepened. Of these 9.3 miles, 0.9 miles will be concrete-lined, 7.3 miles riprap-lined, and 1.1 mile grass-lined.

Two short levees will be constructed to protect Mayo High School along Bear Creek and a housing area along Cascade Creek.

The recommended plan includes hiking and biking trails along the stream corridor to connect with Rochester's excellent park system. A canoe launch area is also planned along the Zumbro River.

Approximately 260 acres will be needed for channel modifications. Flowage easements will be required on an additional 500 acres within project limits. Relocation of approximately 23 homes and 10 businesses, and modifications to 14 bridges and 12 utility crossings, will be required for project construction.

In compliance with State law, the City of Rochester and Olmsted County have enacted floodplain zoning ordinances. Continued floodplain zoning will be required, and continued participation in the National Flood Insurance Program is recommended.

Views of States and Non-Federal Interests.—The Minnesota Pollution Control Agency has specifically concurred in the recommended plan. The Minnesota Department of Natural Resources has concurred in the mitigation measures in the recommended plan. The City of Rochester has indicated its willingness to provide the necessary items of non-Federal participation.

Views of Federal and Regional Agencies.—The Environmental Protection Agency expressed concerns about future floodplain development, water quality, fishery mitigation, and disposal sites, but stated it had no major objections to the recommended plan. The Department of the Interior stated it accepts the mitigation measures in the recommended plan.

Status of Environmental Impact Statement.—The Final Environmental Impact Statement was filed with the Environmental Protection Agency on May 18, 1979.

Project Costs (estimated at October 1982 price levels):
Federal: $89,200,000.[1]
Non-Federal: $22,443,000.[1]

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[1] These costs include $12,493,000 to be reimbursed by non-Federal interests to the United States pursuant to Section 302.

Benefit/Cost Ratio (7⅞ percent interest rate and 100-year economic life): 1.10.

Non-Federal Responsibilities.—The City of Rochester will be required to provide lands, easements, rights-of-way, and relocations necessary for the project's construction. The City will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors. Non-Federal interests shall not be required before and during construction of the project to provide lands, easements, and rights-of-way necessary for changes to highway bridges and foot bridges and approaches to such bridges, and to make relocations of utilities, structures, and other improvements necessary for such changes.

Remarks.—The Federal and non-Federal shares of this project are determined in accordance with Section 302, except that lands, easements, rights-of-way necessary for changes to highway bridges and boat bridges, and relocations necessary for such changes, shall be repaid over a 15-year period.

MISSISSIPPI RIVER AT ST. PAUL, MINN.

Location.—On the Mississippi River, directly opposite downtown St. Paul, Minnesota.

Authority for Report.—Section 216, of the River and Harbor Act of 1970.

Description of Recommended Plan.—In 1964, the Corps of Engineers completed the existing St. Paul Flood Control Project, which provides flood barrier protection to 448 previously floodprone acres along the Mississippi River in St. Paul, Minnesota. The existing project protects against a flood having a discharge of 168,000 cubic-feet-per-second (the 167-year flood). In both 1965 and 1969 the St. Paul area experienced major floods that exceeded the previous record flood of 1952. Because of these recent floods and the potential for over $100 million in flood damages if the project were to fail, the Corps reevaluated the project's level of protection.

The recommended plan of improvement includes three miles of levee and floodwall raise along the alignment of the existing Corps project. The barrier raise will give added protection to 448 acres, on which 134 businesses and industries are now located. The barrier raise will necessitate an easement on 4.6 acres previously not committed to flood control, and will require raising seven existing road ramps over the levee. An existing road will need to be raised along a distance of 900 feet. Modification to existing drainage structures along the existing barrier will also be required.

The recommended plan will reduce flood damages by 80 percent, resulting in an average flood damage reduction of $675,000 annually.

Views of States and Non-Federal Interests.—The State of Minnesota supports the recommended plan. The City of St. Paul supports the plan and has expressed its willingness to provide the necessary items of non-Federal participation.

Views of Federal and Regional Agencies.—The Department of the Interior concurred in the recommended plan. The Environmental Protection Agency concurred in the District Engineer's determination that the proposed action will not significantly affect the quality of the human environment.

Status of Environmental Impact Statement.—The St. Paul District Engineer determined that the proposed action does not constitute a major Federal action significantly affecting the quality of the human environment. Therefore, an Environmental Impact Statement was not prepared.

Project Costs (estimated at October 1982 price levels):

Federal: $7,230,000.[1]

Non-Federal: $1,978,000.[1]

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[1] These costs include $1,292,00 to be reimbursed by non-Federal interests to the United States pursuant to Section 302.

Benefit/Cost Ratio (7⅞ percent interest rate and 100-year economic life): 1.20.

Non-Federal Responsibilities.—Non-Federal interests will required to provide lands, easements, rights-of-way, and relocations necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or it contractors.

PARK RIVER, GRAFTON, N. DAK.

Location.—Grafton is located in Walsh County in northeastern North Dakota on the Park River, a tributary of the Red River of the North.

Authority for Report (Phase I General Design Memorandum).—Section 101(a) of the Water Resources Development Act of 1976.

Description of Recommended Plan.—Recurrent flooding along the South Branch and Main Stem of the Park River causes significant flood problems at Grafton. The flood of record, which occurred in 1950, inundated the entire city of Grafton. More recent floods occurred in 1962, 1965, 1969, and 1979.

The recommended plan of improvement consists of two major components—a grass-lined flood bypass channel 3.75 miles long to the north of Grafton and a levee along the bypass channel and extending upstream to the west of Grafton. Because the levee will cross the river at the upstream end of the bypass channel, a gated control structure will be required to limit the flow in the existing channel.

Views of States and Non-Federal Interests.—The North Dakota State Water Commission supports the recommended plan, and no major issues were raised by the other State agencies that commented on the plan. The City of Grafton expresed support for the plan.

Views of Federal and Regional Agencies.—The Environmental Protection Agency stated it had no objection to the recommended plan. The Department of the Interior stated that the recommended plan will not cause unmitigated adverse impact to fish and wildlife habitats.

Status of Environmental Impact Statement.—The Draft Supplement to the Final Environmenal Impact Statement was filed with the Environmental Protection Agency on August 4, 1982.

Project Costs (estimated at October 1982 price levels):

Federal: $15,200,000.[1]

Non-Federal: $4,436,000.[1]

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[1] These costs include $1,846,000 to be reimbursed by non-Federal interests to the United States pursuant to Section 302.

Benefit/Cost Ratio (7⅞ percent interest rate and 100-year economic life): 1.30.

Non-Federal Responsibilities.—Non-Federal interests will required to provide lands, easements, rights-of-way, and relocations necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or it contractors.

FOUNTAIN CREEK, COLO.

Location.—In southeast Colorado, within the City of Pueblo, Colorado.

Authority for Report (Phase I General Design Memorandum).—Section 1(a) of the Water Resources Development Act of 1974.

Description of Recommended Plan.—In spite of existing flood control projects there remains a residual flood threat in the City of Pueblo, which results in recurring damages currently estimated at $947,200 annually. The most recent flood event occurred in 1965. Section 1(a) of the Water Resources Development Act of 1974 authorized the Phase I general design memorandum stage of advanced engineering and design for a multiple purpose reservoir on Fountain Creek.

The recommended plan consists of improvements to the Fountain Creek channel and construction of levees on both banks to provide a 200-year level of protection to the City of Pueblo, Colorado. The 200-year level of protection represents a flow of 85,000 cubic feet per second in Fountain Creek. This is the maximum flow that can be conveyed through the Pueblo area without significant alterations to existing bridges and to channel sections constricted by urban development.

Structural features of the recommended plan include 5,900 feet of riprap channel with a bottom width varying from 270 to 570 feet, and levees totalling 10,200 feet in length on both east and west banks of Fountain Creek which will be located at low bank areas to prevent flows from entering the developed flood plain.

The levees will generally allow for three to four feet of freeboard. At two locations freeboard will be reduced to provide a controlled failure location in the event of overtopping and to serve as a warning of imminent flooding. A low flow channel will be provided within the main channel. Interior drainage will be controlled through a series of culverts and ponding areas.

The City of Pueblo submitted a recreation plan which was subsequently incorporated into the recommended plan. Features of the recreation plan include expansion of the existing trail system, a low flow channel, picnic facilities, playgrounds, wildlife habitat areas and open space.

Total estimated right-of-way needed is 152 acres. This includes 8 acres of commercial area, 123 acres of vacant area, and 21 acres of ponding area and overbank. Also, the acquisition of four buildings will be required. Most of the land required for the project has already been acquired by the City of Pueblo.

Necessary relocations will include one telephone cable, approximately 300 feet of 8-inch-diameter sewer pipe, about 50 cubic yards of concrete encasement, and roadway repairs.

Flood plain management measures will be implemented by local authorities both upstream and adjacent to the project's stuctural measures. These will preclude imprudent future use of high flood hazard areas, avoid adverse future changes in hydrology and hydraulics affecting the plan's structural components, and will provide open space, wildlife habitat, and recreation areas in an urban setting.

Pueblo is currently participating in the National Flood Insurance Program. In order to receive benefits from the Food Insurance Program, certain zoning and building restrictions must be enforced by the City. As a participant in that Program, the City must require that all new construction and substantial improvements in identified areas of special flood hazard be elevated or be flood proofed to the level of the 100-year flood.

Since the recommended flood control project at Pueblo consists of levees and channel improvement designed for less than the standard project flood, a flood warning system is a necessary feature of the recommended plan. The City of Pueblo, recognizing the current vulnerability to flooding and possible loss of life, operates an existing flood warning system. The City is now in the process of implementing an improved comprehensive flood warning system for Fountain Creek in conjunction with the U.S. Geological Survey and the National Weather Service.

Views of States and Non-Federal Interests.—The State of Colorado supports the recommended plan. The City of Pueblo has established the Fountain Creek Commission to sponsor improvements along the river. This Commission has consistently supported a flood control/recreation project for Fountain Creek in Pueblo.

Views of Federal and Regional Agencies.—The Environmental Protection Agency stated that the levee and channel improvements included in the recommended plan are environmentally and economically preferable to the reservoir project authorized for advanced engineering and design in the Water Resources Development Act of 1974. The Department of the Interior stated it had no objection to the recommended plan.

Status of Environmental Impact Statement.—The Final Environmental Impact Statement was filed with the Environmental Protection Agency on June 12, 1981.

Project Costs (estimated at October 1982 price levels):

Federal: $6,600,000.[1]

Non-Federal: $2,082,000.[1]

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[1] These costs include $862,000 to be reimbursed by non-Federal interests to the United States pursuant to Section 302.

Benefit/Cost Ratio (7⅞ percent interest rate and 100-year economic life): 1.20.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way, and relocations necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

METROPOLITAN DENVER, COLO.

Location.—In the Westerly Creek basin, near Denver, Colorado. Westerly Creek drains an area of about 18 square miles and includes portions of Aurora, Denver, and Arapahoe County.

Authority for Report.—House Public Works Committee resolution adopted July 28, 1971, and Senate Public Works Committee resolutions adopted June 14, 1956, and March 22, 1971.

Description of Recommended Plan.—Flooding on Westerly Creek has occurred in Denver and Aurora in at least 14 years since 1942. Depths of flooding up to 4.5 feet deep have been experienced downstream from Kelly Road Dam, which was originally designed to store runoff from floods somewhat greater than the 100-year event. Extensive development in the basin—particularly upstream from Lowry Air Force Base—has caused substantial increases in runoff, and the effective drainage area of Kelly Road Dam has also increased from 3.7 to 10.5 square miles. These two factors have combined to significantly reduce the effectiveness of the dam and have even endangered the safety of the dam. Emergency measures have been constructed to reduce the potential for catastrophic failure of the dam; however, the level of protection downstream from the dam is still relatively low. With the improved Kelly Road Dam, downstream average annual damages are estimated to be $511,000.

The recommended plan includes flood control measures in the Westerly Creek basin designed to control the standard project flood in the heavily urbanized area downstream from Lowry Air Force Base. The existing Kelly Road Dam will be modified and a new impoundment, Upper Lowry Dam, will be constructed on the upstream portion of Lowry Air Force Base. Both structures will be modified or constructed to full site capacity and will only impound water during floods. Two channels will be constructed to convey drainage into the Upper Lowry impoundment. Other measures of the recommended plan include the establishment and enforcement of floodplain regulations in areas where there would be residual damages, and the development of an effective flood warning plan and an emergency evacuation plan.

Structural measures in the recommended plan will reduce the average annual flood damages by 95 percent. The existing Kelly Road Dam embankment, which was improved under Public Law 99, 84th Congress, as emergency measures in 1979, needs to be completed. The west end of the embankment was not completed in 1979 to allow the larger, more infrequent events to overtop the embankment so that the risk of complete dam failure would be eliminated. The west end of the embankment can be completed once the risk for high flows into Kelly Road Dam is reduced. Upper Lowry Dam will be constructed on Lowry Air Force Base upstream from Kelly Road Dam. Upper Lowry Dam will reduce the flows to Kelly Road Dam and, when combined with the modifications to Kelly Road Dam, will provide standard project flood protection immediately downstream from Lowry Air Force Base. Two channels will be constructed in the upstream from Kelly Road Dam. This dam will reduce the flows to Kelly Road Dam and, when combined into the completion of Kelly Road Dam, will provide standard project flood protection immediately downstream from Lowry Air Force Base. Two channels will be constructed in the upstream end of the pool for Upper Lowry Dam to improve the drainage from the area upstream from Lowry Air Force Base.

The potential for flooding downstream from Lowry Air Force Base will still exist with the structural elements of the plan, due to local runoff in the areas that are tributary to Westerly Creek downstream from Lowry Air Force Base. The potential flooding, of course, would be greater without the structural measures.

Views of States and Non-Federal Interests.—The State of Colorado and Urban Drainage and Flood Control District 69 support the recommended plan and have also urged that certain elements of flood control work with which are being accomplished by non-Federal interests and are compatible with the recommended plan be included as part of the Federal project.

Status of Environmental Impact Statement.—The Final Environmental Impact Statement was filed with the Environmental Protection Agency on May 22, 1981.

Project Costs (estimated at October 1982 price levels):

Federal: $12,000,000.[1]

Non-Federal: $2,499,000.[1]

[1] These costs include $1,773,000 to be reimbursed by non-Federal interests to the United States pursuant to Section 302.

Benefit/Cost Ratio (7⅞ percent interest rate and 100-year economic life): 1.60.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way, and relocations necessary for the project's construction, not including the lands on Lowry Air Force Base. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

Remarks.—The Committee notes that non-Federal interests are accomplishing flood control work both upstream and downstream of the improvements contained in the recommended plan, at a cost in excess of $7 million dollars. It is the policy of the Committee to promote local self-help in solving flooding problems, without jeopardizing the viability of larger Federal project and without penalizing local interests for proceeding with needed flood protection work prior to authorization of a Federal project. This authorization for the Metropolitan Denver project provides that the Secretary shall include as part of the non-Federal contribution of the project any work for upstream drainage improvements and local flood protection work downstream channelization carried by non-Federal interests after January 1, 1978, and before the date of enactment of this Act. This authority applies only to those locally-initiated improvements which the Secretary determines are reasonably compatible with the recommended plan. This authorization also provides that the costs and benefits resulting from such locally-initiated work shall continue to be considered in determining the economic feasibility of the project.

BOGGY CREEK, TEX.

Location.—In Austin, Texas.

Authority for Report.—Section 6 of the Flood Control Act of 1936; resolution of the Senate Commerce Committee adopted August 4, 1936; Section 4 of the River and Harbor Act of 1937; and Section 6 of the River and Harbor Act of 1945.

Description of Recommended Plan.—Severe and frequent flooding occurs along Boggy Creek and its two primary tributaries, Tannehill Branch and Fort Branch. In May 1975, severe flooding caused property damage of approximately $5 million in 1975 prices, and more recent flooding occurred in May and July of 1979.

The recommended plan will include 2.9 miles of channelizations providing containment of 100-year flows within banks, and alterations to four highway bridges and two railroad bridges. Recreational features will include 3.25 miles of hiking, and nature study trails with picnic facilities. A 54-acre parcel of wooded land adjacent to the lower end of Boggy Creek will be acquired to mitigate habitat losses and to enhance the future environmental quality of the project area.

The City of Austin's flood plain regulations will apply to areas along Boggy Creek.

Views of States and Non-Federal Interests.—The Texas Water Development Board and the Texas Parks and Wildlife Department concurred in the recommended plan.

Views of Federal and Regional Agencies.—The Environmental Protection Agency stated it had identified issues of concerns with regard to the recommended plan. The Department of the Interior stated that the recreational and environmental features of the recommended plan should more than compensate for land lost to the project.

Status of Environmental Impact Statement.—The Final Environmental Impact Statement was filed with Environmental Protection Agency on June 20, 1980.

Project Costs (estimated at October 1982 price levels):

Federal: $13,830,000.

Non-Federal: $5,587,000.

Benefit/Cost Ratio (7⅝ percent interest rate and 100-year economic life): 1.20.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way, and relocations (except for railroad bridges) necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

Remarks.—The Committee recognizes that the City of Austin has undertaken certain improvements on the Boggy Creek channel which may be compatible with the recommended plan. It is the policy of the Committee to promote local self-help in solving flooding problems, without jeopardizing the viability of a larger Federal project and without penalizing local interests for proceeding with needed flood protection work prior to authorization of a Federal project. Accordingly, the Committee has directed that the Secretary shall include as part of the non-Federal contribution of the project any work on bridges carried out by non-Federal interests after September 30, 1979 and before the date of enactment, if the Secretary determines that work is reasonably compatible with the Boggy

Creek project. Furthermore, the costs and benefits resulting from that work will continue to be included for purposes of determining the economic feasibility of the project.

BUFFALO BAYOU AND TRIBUTARIES, TEXAS

Location.—In the residential suburban area of Houston, Texas.

Authority for Report.—House Public Works Committee resolution adopted April 20, 1948.

Description of Recommended Plan.—Flood protection is needed for urban areas along the unimproved portion of White Oak Bayou upstream from the mouth of Cole Creek, and along Cole and Vogel Creeks. The last major flood, in March of 1972, caused $2.7 million in damages at 1972 prices.

The recommended plan of improvement includes an improved channel, partially lined with concrete. Channel bottom widths will vary from 50 feet in upper White Oak Bayou to 10 feet in Vogel Creek. These channels have been designed to contain the standard project flood. Of the 386 acres of right-of-way required for construction of the project, at least 326 have already been acquired by the local sponsor. A one-time disposal easement of 139 acres will also be required. Major modifications will include construction of 13 new street bridges, two new railroad bridges, six new foot-bridges, alteration of four street crossings, and relocation of 46 pipelines. Construction of the structural improvements will remove approximately 10,360 acres from the standard project flood plain of three streams.

Land-use regulations in the upper reaches of the three streams are designed to restrict future development in the flood plain and to complete the flood protection project for the streams.

Recreational features will consist of 43,000 lineal feet of hiking and biking trails along White Oak Bayou and a centrally-located neighborhood park, including 20 picnic tables and supporting equipment, playground equipment, and public restrooms.

Specialized architectural treatment of channel lining, and revegetation of project right-of-way with native trees and shrubs have been included in the plan. These improvements will be limited to areas frequently viewed by the public.

Views of States and Non-Federal Interests.—The State of Texas concurs in and has recommended early consideration and approval of the plan by Congress. The Harris County Commissioners Court has stated that the project is a very vital and much needed project. The City and Jersey Village urged that the recommended plan be approved and implemented expeditiously.

Views of Federal and Regional Agencies.—The Environmental Protection Agency stated it had no objection to the recommended plan. The Department of the Interior commented that the recommended plan adequately considered those areas within its jurisdiction and expertise.

Status of Environmental Impact Statement.—The Final Environmental Impact Statement was filed with Environmental Protection Agency on August 10, 1979.

Project Costs (estimated at October 1982 price levels):

Federal: $75,000,000.[1]

Non-Federal: $21,639,000.[1]

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[1] These costs include $11,393,000 to be reimbursed by non-Federal interests to the United States pursuant to Section 302.

Benefit/Cost Ratio (7⅞ percent interest rate and 100-year economic life): 1.60.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way, relocations and a portion of the costs of recreational features, as necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

LAKE WICHITA, HOLLIDAY CREEK, TEX.

Location.—In the north-central portion of Texas, in the City of Wichita Falls.

Authority for Report.—House Rivers and Harbors Committee resolution adopted February 25, 1938.

Description of Recommended Plan.—Lake Wichita, owned by the City of Wichita Falls, was inspected in December 1977 under the Federal program for inspection of non-Federal dams. The dam was declared safe for normal inflows; however, it was determined that the dam could fall if it were subjected to large floods, which the basin is capable of producing. Failure of the structure during a major flood could cause catastrophic damages and loss of life. Although not designed for flood control, the existing dam provides some flood protection for the downstream urban area. Annual flood damages in the urban area below the dam average about $2,200,000 with the existing dam in place and would average about $3,600,000 if the dam were breached. Also, commercial and residential development around the lake is subject to periodic flooding from high lake levels. The most recent flood event occurred in May 1982 with city-wide damages estimated at $34,500,000. Flood damages attributable to Holliday Creek from that flood amounted to an estimated $12,400,000.

The recommended plan consists of raising and repairing the existing Lake Wichita Dam embankment, replacing in kind the existing low-flow outlet works, constructing a new uncontrolled spillway, excavating an improved channel downstream of the dam to the mouth of Holliday Creek. The plan will provide 100-year flood protection in an urban area and reduce damages from events greater than the 100-year flood event, as well as eliminate the possibility of a major dam failure.

The existing Lake Wichita Dam earthen embankment will be raised and lengthened to prevent overtopping from the probable maximum flood. The existing low-flow outlet works will be replaced in kind. A new concrete, frequent-service, uncontrolled spillway, 212 feet wide and 4.7 feet lower than existing spillway, will be constructed to reduce flood hazard to properties around the lake area and to control outflow into the downstream channel. The top of the conservation pool in Lake Wichita will be about 1,200 surface acres. The 100-year flood pool would be about 2,800 surface acres.

The channel will extend from the spillway to the mouth of Holliday Creek at the Wichita River. The channel will be about 9 miles long, grass-lined, and will have a 50-foot bottom width with side slopes of 1 vertical to 3 horizonal. The channel will provide a 100-year level of flood protection along Holliday Creek from spillway discharges and intervening area flow below the Lake Wichita Dam.

About 240 acres of land will be required for the downstream channel; 53 structures will be relocated in lake area, 3 railroad bridges and 2 street bridges will be replaced, 4 street bridges and several small foot bridges will be removed, the foundations of 10 bridges and several small foot bridges will be removed, the foundations of 10 bridges will be reworked, and a number of utility will be required.

No mitigation features are required. Safety and aesthetic features include a safety fishing berm, low-flow channel in the flood control channel to ease maintenance and allow open space, safety fences where necessary, and tree and shrub planting along the top of flood control channel.

Local interests will be required to publicize flood plain information and adopt zoning regulations as may be necessary to insure compatibility between future development and protection levels provided by the project. The City of Wichita Falls is participating in the Federal Food Insurance Program.

Views of States and Non-Federal Interests.—The Texas Water Department Board stated full support of the recommended plan. The City of Wichita Falls stated its full support of the recommended plan and agreed to provide the necessary items of non-Federal participation, including providing the cost of making the existing dam safe. In testimony before the Committee's Water Resources Subcommittee on July 23, 1982, the Mayor of Wichita Falls reaffirmed the City's commitment to the recommended plan, and the City's intent to provide the necessary requirements of non-Federal participation.

Views of Federal and Regional Agencies.—The Environmental Protection Agency stated it had identified no issues of concern and had no objection to the recommended plan. The Department of the Interior stated it had no objection to the recommended plan.

Status of Environmental Impact Statement.—The Final Environmental Impact Statement was filed with the Environmental Protection Agency on March 13, 1981.

Project Costs (estimated at October 1982 price levels):

Federal: $19,500,000.

Non-Federal: $9,982,000.

Benefit/Cost Ratio (7⅞ percent interest rate and 100-year economic life): 1.30.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way, and relocations necessary for the project's construction. In addition, non-Federal interests must provide a cash contribution equivalent to the cost of repairs needed to make the existing Lake Wichita Dam safe, currently estimated at $2,759,000, exclusive of lands (lands and damages are estimated to cost $1,641,000). Repairs to the existing dam, if compatible with the recommended plan, would be counted toward that cash contribution. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

Remarks.—It is the policy of the Committee to promote local self-help in solving flooding problems, without jeopardizing the viability of a larger federal project and without penalizing local interests for proceeding with needed flood protection work prior to authorization of a Federal project. Accordingly, the Secretary is required to include as part of the non-Federal contribution of this project any local flood protection work, such as rehabilitation or repair of the existing dam, accomplished after January 1, 1983 and before the date of enactment of this Act, provided the Secretary determines that such work is compatible with the authorized project. Costs and benefits resulting from such work by non-Federal interests shall be included in the Secretary's determination of the project's economic feasibility.

LOWER RIO GRANDE, TEX.

Location.—In southern Texas, in Hidalgo, Willacy, and Cameron Counties.

Authority for Report (Phase I General Design Memorandum).—Section 68 of the Water Resources Development Act of 1974.

Description of Recommended Plan.—Problems in the project area relate to floodwater damage, inadequate drainage, saline soils, and erosion. There is a need for drainage outlets and an interdependent system of lateral and on-farm facilities to provide flood protection to urban and rural areas, increase agricultural productivity, and protect and enhance environmental resources. A three-phase flood control-agricultural drainage plan was developed by the Soil Conservation Service in 1969 which consisted of major outlet channels (Phase I), a system of lateral channels (Phase II), and an accelerated land treatment program (Phase III). The Corps of Engineers has been directed to evaluate Phase I of the Soil Conservation Service Plan.

The recommended plan includes constructing two major channels (the Raymondville Drain and the South Channel), constructing channel improvements and bank protection along the Arroyo Colorado, and establishing native vegetation in disposal areas and channel rights-of-way to compensate for lost habitat and to enhance wildlife in the project area. The recommended plan will provide 2-year protection and 5-year protection to agricultural and rural areas which drain into the Raymondville Drain and South Channel and into the Arroyo Colorado, respectively; 100-year structural flood protection to the Cities of Raymondville, Edinburg, and McAllen; 50-year structural flood protection for the Cities of LaVilla and Edcounch; and combination structural-nonstructural 100-year flood protection for the City of Lyford.

Specific structural features of the recommended plan include the following:

1. Raymondville Drain—Enlangement of 39.4 miles of existing channel to bottom widths ranging from 30 feet at the upstream limits to 150 feet at the downstream limits; widening 5.73 miles of channel to 300 feet to provide urban protection for Raymondville; constructing 2.61 miles of urban lateral with a bottom width of 75 feet, and 1.82 miles of urban lateral with a bottom width of 49 feet; and constructing 3.88 miles of levee and diversion ditch to divert overland sheet flow.

2. South Channel—Enlargement of 33.2 miles of existing channel and excavation of 17.3 miles of new channel to bottom widths ranging from 5 feet at the upstream limits to 275 feet at the downstream limits; construction of urban laterals by enlarging 2 reaches of existing channel totaling 19.4 miles and excavating 10 reaches of new channel totaling 28.2 miles; and constructing 1.89 miles of levee and diversion ditch to divert overland sheet flow.

3. Arroyo Colorado—Construction of a concrete diversion structure consisting of four 9 by 10 foot box culverts at the junction with the Main Floodway; enlargement of 400 feet of existing channel from 40 to 70 feet in width; enlargement of a 1.4-mile reach of channel to bottom widths ranging from 70 to 85 feet; and improvement of 4 reaches of the Arroyo Colorado in the City of Harlingen to provide erosion protection.

Nonstructural measures in the recommended plan include raising 38 residences in the City of Lyford.

Specific environmental features of the recommended plan include the following:

1. Mitigation on separate lands—Acquisition and construction of facilities on 1,600 acres of land to mitigate the loss of 876 acres of saline wetlands. Acquisition of 294 acres of brush land for nursery areas and 230 acres of agricultural land for corridors for brush establishment on disposal areas.

2. Mitigation on project lands—Acquisition of 1,957 acres of land that would otherwise be under easement for disposal and planting to brush and grass; planting grass on channel berms and slopes; and relocation of channel right-of-way to include 130 acres of potholes to be developed for wetland mitigation.

3. Enhancement measures—Acquisition of an additional 1,425 acres of disposal area in lieu of easement for brush and grass development; and relocating channel right-of-way to include 350 acres of potholes for wetland development.

Views of States and Non-Federal Interests.—The State of Texas generally concurred with the findings of the recommended plan, but expressed concern over the quality of the floodwater discharges with regard to sediments and toxic materials. The Chief of Engineers has determined that when all phases of construction have been completed, the quality of the floodwater discharges will increase over existing conditions. The local sponsors have indicated a willingness to provide the necessary items of non-Federal participation.

Views of Federal and Regional Agencies.—The Environmental Protection Agency, the Department of Commerce, and the Department of the Interior all expressed concerns which generally focus on water quality of floodwaters, project impacts, and mitigation for fish and wildlife habitat losses. These concerns are being addressed in the preparation of the Final Environmental Impact Statement.

Status of Environmental Impact Statement.—The Draft Final Environmental Impact Statement was filed with the Environmental Protection Agency on July 29, 1983.

Project Costs (estimated at October 1982 price levels):

Federal: $120,430,000.

Non-Federal: $45,171,000.

Benefit/Cost Ratio (7⅞ percent interest rate and 50-year economic life): 2.30.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way and relocations necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repaid during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

Remarks.—The Committee notes the environmental concerns raised by the Environmental Protection Agency, the Department of Commerce and the Department of the Interior during their respective reviews of the Draft Environmental Impact Statement. The Committee also notes the conclusion of the Board of Engineers for Rivers and Harbors that, without assurance that Phases II and III will be implemented, the overall project would be environmentally unacceptable. Accordingly, in the interest of protecting environmental values, the Committee has directed the Secretary, in consultation with appropriate Federal, State, and local agencies, to study adverse effects of discharges of sediments and pollutants from the project on fish and wildlife. The Secretary is authorized to undertake such measures as he determines necessary and appropriate to minimize any such adverse effects and to mitigate any adverse effects of the project on fish and wildlife habitat. Before the acquisition by the Corps of any interest in real property for the project or the actual construction of the project, the Secretary, after consultation with the Department of Agriculture, must determine that Phase II and III of the project will be undertaken by the Department of Agriculture. The Secretary and the Secretary of Agriculture, in consultation with appropriate Federal, State, and local agencies, shall develop an overall mitigation plan for Phases I, II, and III of the project. Not later than one year after the date of enactment of the bill, the Secretary shall transmit to the Committee on Public Works and Transportation of the House and the Committee on Environment and Public Works of the Senate a copy of that mitigation plan, along with recommendations for additional measures which the Secretary determines necessary and appropriate to mitigate the adverse effects of the project on fish and wildlife habitat. Except for funds from the Environmental Protection and Mitigation Fund established in Title XI, no appropriation shall be made for the acquisition of any interest in real property for, or the actual construction of, the Lower Rio Grande project if that acquisition and actual construction have not been approved by resolutions of the two Committees.

SIMS BAYOU, TEX.

Location.—The urbanized watershed of Sims Bayou is located in the southern part of Houston, Texas, and provides drainage for 94 square miles of the Buffalo Bayou basin. The area affected by the recommended plan lies almost entirely within the corporate city limits of Houston, South Houston, and Missouri City.

Authority for Report.—House Public Works Committee resolution adopted April 20, 1948.

Description of Recommended Plan.—The Sims Bayou drainage basin has experienced extensive urbanization over the past 20 to 25 years, mostly in the form of residential developments, and now contains a population of about 225,000. Urban flooding problems of the area are caused primarily by very flat topography, increased rainfall runoff resulting from urbanization, and by the inadequate stream capacity of Sims Bayou. More than 27,000 structures are subject to flood damage within the basin. Large developed portions of the basin are subject to frequent flooding, and continuing urbanization, caused by the demands for additional housing, will substantially increase the problems in the future.

The recommended plan of improvement includes channel enlargement and rectification, with appropriate erosion control measures, of 19.31 miles of Sims Bayou to provide 50-year flood protection; installation and construction of environmental quality measures and riparian habitat improvements along the entire alignment of the proposed project; and construction of a recreational development plan on proposed flood control rights-of-way along Sims Bayou including 27 miles of hiking and biking trails connecting to existing public parks, with picnic, playground, and other outdoor leisure facilities.

The flood control improvements in Sims Bayou constitute the basic element of the plan. The recreational development plan is a separate increment which is independently justified. A description of the Channel improvements included in the recommended plan follows:

Location and reach length	Channel bottom width and type
Mouth to La Porte Rd. (1.04 mi)	180′ Trapezoidal w/grass and riprap.
La Porte Rd. to Gulf Freeway (2.65 mi)	200′ Trapezoidal w/grass and riprap.
Through Gulf Freeway (0.10)	75′ Concrete lined.
Gulf Freeway to Broadway Blvd. (0.31 mi)	50′ Concrete lined.
Broadway Blvd. to Telephone Rd. (1.05 mi)	45′ Concrete lined.
Telephone Rd. to Swallow St. (1.39 mi)	55′ Concrete lined.
Swallow St. to Mykawa Rd. (1.05 mi)	50′ Concrete lined.
Mykawa Rd. to Cullen Blvd. (3.02 mi)	65′ "Grasscrete" and grass lined.
Cullen Blvd. to South Freeway (3.57 mi)	125′ Trapezodial grass lined.
South Freeway to Buffalo Speedway (1.74 mi)	110′ Trapezoidal grass lined.
Buffalo Speedway to end near Croquet St. (3.40 mi)	50′ "Grasscrete" and grass lined.

Environmental features of the recommended plan include revegetation with native trees on 95 acres of bayou rights-of-way above the proposed channel banks; creation of 5 acres of wetland vegetated areas within oxbows formed by proposed channel bend easing; architectural treatment of concrete channel linings in areas of public access; and modification of proposed channel drop structures to create low-flow riffle areas within the bayou.

The recreational development plan includes the construction of 27.1 miles of all-weather hiking and biking trails along the proposed improved reach of Sims Bayou within bayou rights-of-way; the construction of 32 pedestrian bridges crossing the bayou and lateral drains; the installation of picnic tables, cooking grills, benches, playground equipment, and a restroom along the bayou rights-of-way in the vicinity of existing city park sites; and the construction of access parking areas, utilities, and lighting.

Views of States and Non-Federal Interests.—Agencies of the State of Texas generally concurred with the findings of the report. The Texas Department of Water Resources stated that it would be desirable to provide at least 100-year flood protection. The Texas Parks and Wildlife Department expressed a desire that vegetative habitat losses resulting from the project be adequately replaced. The Harris County Flood Control District and the County's governing body, the Harris County Commissioners Court, have endorsed the proposed flood protection project. The Parks Department of the City of Houston participated in development of the proposed recreation plan, and the Houston City Council has concurred in the recreational development plan. The Houston Sierra Club expressed concern about habitat destruction, water quality degradation, and alteration of flow regimes.

Views of Federal and Regional Agencies.—The Department of the Interior expressed concern over potential environmental impacts of the project. These concerns were either satisfactorily addressed by the Corps of Engineers or will be reconsidered during preconstruction planning design. No other agency has expressed opposition to the project.

Status of Environmental Impact Statement.—The Final Environmental Impact Statement was filed with the Environmental Protection Agency on October 14, 1983.

Project Costs (estimated at October 1982 price levels):

Federal: $114,900,000.[1]

Non-Federal: $34,608,000.[1]

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[1] These costs include $15,075,000 to be reimbursed by non-Federal interests to the United States pursuant to Section 302.

Benefit/Cost Ratio (7⅞ percent interest rate and 100-year economic life):

Flood protection: 9.87.

Recreation: 2.12.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, right-of-way, relocations (except for railroads) and a portion of recreation costs necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

MIDDLE RIO GRANDE, N. MEX.

Location.—In the center of the State of New Mexico, between Bernalillo and Belen.

Authority for Report.—House Public Works Committee resolution adopted April 11, 1974; and Senate Public Works Committee resolution adopted July 17, 1969.

Description of Recommended Plan.—In spite of the existing flood control projects, there remains a residual flood threat which results in recurring damages currently estimated at $6.7 million annually. Residents of low-lying areas desire relief from flooding problems. The recommended plan consists of raising and rehabilitating existing levees. The level of protection will be the same as that currently provided by the Federal levee protecting the City of Albuquerque. Under the recommended plan, the rehabilitation of 62.3 miles of levees, as shown below, will provide uniform protection against flows of 42,000 cubic feet per second.

Unit	Length (miles)	Average height increase, including 3 ft. freeboard (feet)
Corrales	12.6	2.8
Mountainview	4.4	2.5
Isleta-West	3.2	3.8
Belen-East	22.1	2.7
Belen-West	20.0	3.0
Total	62.3	

Also included in the plan are six overlap levees, totaling 43,500 feet in length, eight backflow-prevention structures, and two excessive-inflow-prevention structures.

A total of fifty acres would need to be acquired for new rights-of-way, as shown below.

Unit	*Acres*
Corrales	14
Isleta-West	24
Belen-East	12
Total	50

Relocations comprise raising five highway bridge approaches and one 2,000-foot stretch of railroad track to accommodate the 42,000 cubic-feet-per-second design flow.

The only feasible non-structural measure specifically identified in the recommended plan is flood plain zoning in the Isleta-East reach, which has very little existing development.

Mitigation measures on separable lands will included the acquisition of 200 acres of woodland to compensate for loss of habitat associated with permanently lost use of 105 acres of riparian woodland and temporary damage to 150 acres of woodland (for access roads, borrow areas, etc.) The 150 acres of woodland would also be restored to their natural condition after project construction. Other mitigation measures include contractural construction controls to minimize adverse impacts, and management of riparian woodland and river channel contiguous to the project area.

Views of States and Non-Federal Interests.—The State of New Mexico endorses the recommended plan and concurs in the view that the proposed development of 75 acres of wetlands is properly described as a wildlife enhancement feature rather than a mitigation item and, therefore, should be deleted. The Middle Rio Grande Conservancy District shares that view.

Views of Federal and Regional Agencies.—The Department of the Interior desagrees with the report of the Chief of Engineers regarding deletion of 75 acres of wetlands identified by the District Engineer as a mitigation feature.

Status of Environmental Impact Statement.—The Final Environmental Impact Statement was filed with the Environmental Protection Agency on September 12, 1980.

Project Costs (estimated at October 1982 price levels):

Federal: $39,850,000.[1]

Non-Federal: $10,325,000.[1]

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[1] These costs include $8,225,000 to be reimbursed by non-Federal interests to the United States pursuant to Section 302.

Benefit/Cost Ratio (7⅞ percent interest rate and 100-year economic life): 1.41.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way, relocations, and a portion of mitigation costs, as necessary for the project's construction. The non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

Remarks.—The Committee notes the comments of the Department of the Interior regarding the development of a 75-acre wetland in the project area. Accordingly, in the interest of protecting environmental values, the Corps is directed to establish a 75-acre wetland and acquire 200 acres of land, as recommended by the Albuquerque District Engineer in his report of June 13, 1979.

PUERCO RIVER AND TRIBUTARIES, NEW MEXICO

Location.—The City of Gallup, in McKinley county, located in northwestern New Mexico, about 135 miles west from Albuquerque.

Authority for Report.—House Public Works Committee resolution adopted October 12, 1972.

Description of Recommended Plan.—The recommended plan will provide flood protection for the City of Gallup against recurrent flooding from the Puerco River. The flood in July of 1972 caused $1.3 million in damages to Gallup, at 1972 price levels. The recommended plan consists of the construction, reconstruction, realignment, and extension of levees; the construction of an inlet structure; the removal of a rock knoll; the acquisition of rights-of-way; the acquisition of flooding, ponding and flowage easements; floodplain management; and the construction of a bicycle trail. The plan will provide 100-year flood protection to the City of Gallup.

Specific structural features of the recommended plan include the following:

1. Reconstruction, realignment and extension of the existing south levee (25,000 cubic-feet-per-second (cfs) capacity) for a distance of approximately 6,515 feet;

2. Reconstruction and realignment of the existing north levee to ensure existing design capacity. Construction of an auxiliary levee to contain 25,000 cfs and prevent overflow onto Interstate 40. Total distance of the north levee improvement and new construction is 5,145 feet; and

3. Construction of a 250-feet inlet structure and removal of a rock knoll to increase channel capacity to 25,000 cfs.

Rights-of-way, flooding easements, and relocations will be required in order to limit obstructions to the proper functioning of the project. Lands required total 137.5 acres. Rights-of-way for the levees are presently owned by the State of New Mexico for highway development. Minor utility relocations will also be required.

Nonstructural features of the recommended plan will include the acquisition of a flooding easement of 83 acres, which will be sufficiently restrictive to prevent future development in the floodplain.

A bike trail is included in the recommended plan as a recreational feature. The total trail system will be 3.9 miles long, with 1.1 miles on the project's levees.

The mitigation plan, which was coordinated with the Fish and Wildlife Service, includes the purchase of 30 acres within the flowage easement of the project. Ten of the 30 acres will be planted with native trees and brushes to compensate for the permanent loss of riparian habitat.

Views of States and Non-Federal Interests.—The City of Gallup and the State of New Mexico support the recommended plan.

Views of Federal and Regional Agencies.—Federal agencies commenting on the recommended plan either supported it or did not object to it.

Status of Environmental Impact Statement.—The Final Environmental Impact Statement was filed with the Environmental Protection Agency on March 31, 1981.

Project Costs (estimated at October 1982 price levels):

Federal: $3,220,000.[1]

Non-Federal: $834,000.[1]

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[1] These costs include $725,000 to be reimbursed by non-Federal interests to the United States pursuant to Section 302.

Benefit/Cost Ratio (7⅞ percent interest rate and 100-year economic life): 1.5.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way, relocations, and a portion of recreation and mitigation costs necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

LITTLE COLORADO RIVER, ARIZ.

Location.—The City of Holbrook is in Navajo County, located in northeastern Arizona, about 150 miles north of Phoenix.

Authority for Report.—Section 216 of the Flood Control Act of 1970.

Description of Recommended Plan.—The recommended plan will provide flood protection for the City of Holbrook against recurrent flooding from the Little Colorado River. The plan consists of raising the existing north bank project levee, addition of a new south bank levee, a low flow channel, recreational facilities and mitigation features.

The existing project levee (north levee) will be modified to a height ranging from 23 feet high upstream of the Apache Railroad bridge to about 12 feet high downstream of the bridge. This levee will be about 18,000 feet long. The south side levee will be about 5,000 feet long, with a maximum height of 23 feet. The levee system will provide standard project flood protection (107,000 cubic feet per second) to the City of Holbrook from floodflows from the Little Colorado River.

Required rights-of-way will include about 23 acres for the north levee, 59 acres for the low-flow channel and cleared strip, 59 acres for the north-side ponding area, and 57 acres for the south levee and south side interior drainage channel. In addition to fee title rights-of-way, a permanent flowage easement will be required for the entire riverbed. That easement will cover about 1,027 acres.

Recreational features of the recommended plan include a 3.7-mile-long bike trail and a 5-acre picnic area.

Mitigation requirements for the recommended plan were established through consultation with the Fish and Wildlife Service. They consist of a 30-foot uncleared strip on each side of the low flow channel.

Views of States and Non-Federal Interests.—The State of Arizona supports the recommended plan as does the City of Holdbrook.

Views of Federal and Regional Agencies.—Comments from the Department of the Interior, Agriculture, Environmental Protection Agency and Federal Energy Regulatory Commission expressed no significant concerns.

Status of Environmental Impact Statement.—The Final Environmental Impact Statement was filed with the Environmental Protection Agency on August 14, 1981.

Project Costs (estimated at October 1982 price levels):

Federal: $7,730,000.

Non-Federal: $2,550,000.

Benefit/Cost Ratio (7⅝ percent interest rate and 100-year economic life): 2.1.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way, relocations and a portion of recreation and mitigation costs necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

CACHE CREEK BASIN, CALIF.

Location.—In central California, about 90 miles north of San Francisco, on the eastern slope of the Coastal Range.

Authority for Report.—House Flood Control Committee resolution adopted May 29, 1946 (Clear Lake Area); House Public Works Committee resolution adopted June 19, 1963 (Cache Creek Settling Basin).

Description of Recommended Plan.—The principal problems studied were a flood problem on the rim of Clear Lake in Upper Cache Creek Basin and a sediment control problem in Lower Cache Creek Basin. Flooding on Clear Lake rim is caused primarily by inadequate discharge capability of the lake's 5-mile-long outlet channel. The sediment control problem is caused by the fact that sediment originating in Cache Creek is deposited downstream in flood control and navigation channels. The recommended plan consists of enlarging the outlet channel of Clear Lake and providing a bypass channel to reduce flooding, enlarging and raising levees around the existing Cache Creek Settling Basin to provide additional storage for sediment, and establishing of a wildlife refuge in a settling basin. Aiso, future development on Clear Lake rim will be required to flood-proof or otherwise construct above the elevation of the pre-project 100-year flood plain.

In the Upper Basin, structural features of the recommended plan include widening and/or deepening 3.3 miles of the existing 5-mile-long Clear Lake Outlet Channel to a capacity of 8,000 cubic-feet-per-second (cfs) at a Clear Lake stage of 7.56 feet; and constructing a 1.1-mile-long bypass channel around the highly developed area adjacent to the existing outlet channel.

The total of 79 acres for channel rights-of-way will be acquired in fee title. Easements for temporary disposal areas will total 80 acres. Two bridges will have to be constructed over the bypass channel and numerous utilities will require relocation.

The major effect of the structural and nonstructural features for the Upper Basin will be a reduction in flood damages to both existing and future development on Clear Lake rim; also, existing and potential urban areas and about 4,100 acres of existing and future agricultural areas will be protected from floods. The 100-year flood stage on Clear Lake will be reduced by 2.25 feet.

In the Lower Basin, structural features of the recommended plan include enlarging the existing perimeter levees of the Cache Creek Settling Basin an average of 12 feet to provide 50 years of sediment storage capacity;

Reconstructing and enlarging the existing Cobble Weir; and

Excavating 50,000 cubic yards of sediment annually, for use by local topsoil distributors, which decrease sediment storage requirements within the basin by about 1,500 acre-feet over the 50-year project life.

The plan will require the acquisition in fee of 3,600 acres of the existing settling basin; the City of Woodland's storm runoff pumping facility pumping head will have to be increased by about 12 feet; and three dwellings located in the north portion of the settling basin will have to be relocated.

The major effect of the plan for the Lower Basin would be trapping an average of 340 acre-feet per year of Cache Creek's sediment load upstream of the Yolo Bypass over 50 years. With this control, the integrity of the Sacramento River Flood Control Project will be insured, and about 435 acres of sewage oxidation ponds owned by the City of Woodland will be protected. Also, downstream dredging requirements will be reduced.

Future development on Clear Lake rim will be required to flood proof or otherwise construct above the elevation of the pre-project 100-year flood plain, and releases from Clear Lake will be controlled by a modified operation of Clear Lake Dam.

Environmental features of the plan for the Upper Basin will include the improvement of fish and riparian habitat in the main channel and bypass channel by constructing potholes in the channel bottom and riparian plantings along cleared areas of the main channel and bypass. In the Lower Basin, environmental features will include the purchase in fee of 3,600 acres of the existing settling basin and the establishment of a wildlife refuge, which will provide 4.6 million waterfowl use days and 108,000 shorebird and marshbird use days annually and will reduce annual losses attributed to crop depredation by waterfowl.

Views of States and Non-Federal Interests.—The State Resources Agency stated that the bypass channel should be designed to avoid causing any impact on archeological resources and that Native Americans be included in the planning process. The Agency also urged an intensive survey to assess the cultural resources within the entire area of environmental impact. The State Lands Commission also recommended that the project be designed to avoid impacts on the cultural resources of Anderson March.

Views of Federal and Regional Agencies.—The Department of the Interior expressed concern over potential impacts to the cultural resources of the Anderson March area.

Status of Environmental Impact Statement.—The Final Environmental Impact Statement was filed with the Environmental Protection Agency on July 25, 1980.

Project Costs (estimated at October 1982 price levels):

Federal: $21,060,000.

Non-Federal: $7,340,000.

Benefit/Cost Ratio (7⅞ percent interest rate; economic life—Upper Basin (100 yrs.), Lower Basin (50 yrs.)): 2.4 Upper Basin; 1.8 Lower Basin; 2.0 combined.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way, and relocations necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intented purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

Remarks.—The Committee notes the comments of the State of California and the Department of the Interior regarding the design of the bypass channel to minimize adverse effects on archeological resources. Accordingly, the Secretary is directed to reexamine, in consultation with interested Federal and State agencies and Indian tribes, such design and shall make such changes as he deems necessary and appropriate to minimize adverse effects on such resources.

REDBANK AND FANCHER CREEKS, CALIF.

Location.—In the Fresno-Clovis metropolitan area of Fresno County, California.

Authority for Report.—House Public Works Committee resolutions adopted June 13, 1956 and May 8, 1974.

Description of Recommended Plan.—Urban flood problems occur in the Fresno area along Redbank, Fancher, Pup, and Big Dry Creeks and Alluvial Drain. There is also a significant demand for water-oriented recreation in the project area, and, due the lack of storage facilities, there is a need for additional irrigation water supplies. In various locations within the study area, groundwater levels are receding and the quality of the groundwater is declining. The recommended plan consists of enlarging the existing Big Dry Creek reservoir, and constructing flood detention basins on Fancher, Redbank, and Pup Creeks and Alluvial Drain.

The existing single-purpose flood control facility, Big Dry Creek reservoir, will be raised from 40 feet to 55 feet, which will enlarge the present capacity of 16,250 acre-feet to 43,200 acre/feet, including 4,000 acre/feet for recreation and 900 acre-feet for sediment deposition. The plan will require the purchase in fee of 675 acres with current flowage easements and 70 acres of new lands, and 1,170 acres of new flowage easements. Big Dry Creek Reservoir, as modified, will provide standard project flood protection for areas downstream.

A 49-foot-high flood control dam on Fancher Creek will provide 13,000 acre-feet of storage capacity and 200-year flood protection. The construction of this dam will require the fee purchase of 1,470 acres.

An offstream flood control detention basin on Redbank Creek will provide 1,500 acre-feet of storage capacity and 200-year flood protection. It will consist of two separate excavated basins connected by a siphon. Maximum height of the detention dike will be 6 feet. It would require the fee purchase of 140 acres.

A 17-foot-high flood control detention basin on Pup Creek will provide 280 acre/feet of storage capacity and 200-year flood protection. It would require a fee purchase of 145 acres.

A 15-foot-high flood control detention basin on Alluvial Drain will provide 225 acre/feet of storage capacity and 200-year flood protection. It will require 145 acres of flowage easements.

Recreational facilities at Big Dry Creek Reservoir will provide for boating, fishing, and picnicking, and 70 acres of riparian species will be planted around the reservoir.

Four thousand acre-feet of recreation use storage will be provided by the enlarged Big Dry Creek facility. The minimum flow release will be zero for all facilities. The design flow releases for the facilities (Standard Project Flood for Big Dry Creek and 200-year flood for all others) and spillway design are as follows: Big Dry Creek, 700 cubic-feet-per-second (cfs); Fancher Creek, 200 cfs;

Redbank Creek, 200 cfs; Pup Creek, 25 cfs; and Alluvial Drain, 25 cfs.

Views of States and Non-Federal Interests.—The State of California expressed concern that the estimated level of recreation use at Big Dry Creek Reservoir may be too high unless extensive facilities are provided and a firm supplemental water source to maintain the reservoir level is established. Local interests have expressed their intent to furnish the supplemental water. The State also expressed concern about effects on wildlife and its habitat, resulting from increasing recreational use, and added development in the protected flood plain. The District Engineer's report reflects the detailed report and recommendations of the U.S. Fish and Wildlife Service, which include the views of the Director of the California Department of Fish and Game, and the Fish and Wildlife Service. Measures to mitigate wildlife habitat losses are included in the recommended plan.

Views of Federal and Regional Agencies.—The Environmental Protection Agency expressed concern that any future project modifications should not adversely affect the groundwater aquifer, which provides the sole drinking water supply for the area.

Status of Environmental Impact Statement.—The Final Environmental Impact Statement was filed with the Environmental Protection Agency on November 7, 1980.

Project Costs (estimated at October 1982 price levels):

Federal: $57,200,000.[1]

Non-Federal: $20,260,000.[1]

[1] These costs include $2,280,000 to be reimbursed by non-Federal interests to the United States pursuant to Section 302.

Benefit/Cost Ratio (7⅞ percent interest rate and 100-year economic life): 1.2.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way, relocations and a portion of recreation costs necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

Remarks.—The Committee notes the concerns of the Environmental Protection Agency regarding possible adverse effects of the project on groundwater resources. Accordingly, the Corps is directed to include appropriate measures to minimize adverse effects on groundwater and to maximize benefits to groundwater, including groundwater recharge.

SANTA ANA RIVER MAINSTEM, CALIFORNIA

Location.—Along the Santa Ana River, generally from 60 miles east of Los Angeles, California to 40 miles southeast of the city, including the western portion of San Bernardino and Riverside Counties, and most of Orange County.

Authority for Report.—Section 109 of the Water Resources Development Act of 1976.

Description of Recommended Plan.—Despite the existence of Prado Reservoir and limited channel improvements, there is the potential of a standard project flood on the Santa Ana River causing an estimated $11 billion in damages to about 117,000 acres along the Santa Ana River and Santiago Creek in highly urbanized Orange County. Significant natural resources in Santa Ana Canyon and in the coastal zone at the River's mouth are in danger of being irretrievably lost. Recreational facilities are needed throughout the basin. The recommended plan includes construction of Mentone Dam on the upper Santa Ana River; acquisition for mitigation of up to 500 acres of juniper woodland near Mentone; management of the post-project flood plain between Mentone Dam and Prado Reservoir; enlargement of the existing Prado Dam and Reservoir project; improvements on Oak Street Drain; acquisition of about 1,500 acres, including the post-project flood plain, in Santa Ana Canyon below Prado Reservoir; channel improvements on the Santa Ana River between the canyon and the Pacific Ocean; mitigation of about 5 acres of Victoria Pond below the Hamilton Avenue-Victoria Street Bridge; restoration of 5 acres of beach at Huntington State Beach; relocation of 1.5 acres of endangered California Least Tern nesting beach habitat near the mouth of the Santa Ana River; acquisition of 92 acres of habitat near the river mouth, of which 8 acres would be for mitigation and 84 acres would be for preservation; improvements and flood plain management on the lower portion of Santiago Creek; and recreation facilities at the major project features.

The recommended project will provide 100-year flood protection for Santiago Creek and standard project flood protection for the Santa Ana River. Flood control operations of the new Mentone Dam and the enlarged Prado Dam will contribute incidental water conservation benefits through increased ground-water recharge from detained flood flows. In addition, the project would generate about 2.3 million recreation-days of reservoir-type leisure activities at Mentone and Prado Reservoirs and trail-type activities at the lower Santa Ana River and Santiago Creek. Acquisition of 92 acres of marshland at the mouth of the Santa Ana River will assist in the preservation of the endangered Least Term.

A description of features of the recommended plan is as follows:

1. Mentone Dam—Length, 17,200 feet; height, 223 feet; flood control storage, 181,000 acre-feet.
2. Prado Dam—Raise existing dam 30 feet; modify spillway (raise 20 feet and enlarge) and outlet works.
3. Oak Street Basin—2.0 miles of channel improvements.
4. Lower Santa Ana River—23 miles of improved channels and levees.
5. Santiago Creek—Flood retardation basin and about 1.7 miles of channel improvements.

Acquisition of 6,400 acres of lands, easements, and rights-of-way and the relocation of railroads and railroad bridges, highways and highway bridges and utilities will be required.

Environmental features of the recommended plan include acquisition and preservation of 1,500 acres of the Santa Ana Canyon for open space and wildlife habitat; acquisition for mitigation of 500 acres of juniper woodland in the vicinity of Mentone Dam; acquisition for mitigation and enhancement of 92 acres of marshland at the mouth of the Santa Ana River; restoration of 5 acres of Victoria Pond; restoration of 5 acres of beach at Huntington State Beach; and relocation of 1.5 acres of endangered California Least Tern nesting habitat near the mouth of the Santa Ana River.

Views of States and Non-Federal Interests.—The State of California and the affected counties generally strongly support the recommended plan. The State, however, expressed concern over several features of the plan that must be addressed during preconstruction planning, including reservoir recreation facilities, river mouth widening, water conservation facilities and the design of Mentone Dam. Local interests remain concerned over planned improvements in the upstream reaches of the plan, specifically those associated with the Mentone Dam.

Views of Federal and Regional Agencies.—The Department of the Interior generally concurred in the recommended plan and supported the 84-acre marshland feature. The Department expressed concern over several potential impacts that must be addressed during preconstruction planning. The Environmental Protection Agency did not oppose the recommended plan and supported the 84-acre marshland feature. The Environmental Protection Agency's concern over the Prado Basin borrow site must also be addressed during preconstruction planning.

Status of Environmental Impact Statement.—The Final Supplemental Environmental Impact Statement was filed with the Environmental Protection Agency on August 14, 1981.

Project Costs (estimated at October 1982 price levels):

Federal: $1,178,000,000.[1]

Non-Federal: $322,971,000.[1]

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[1] These costs include $240,971,000 to be reimbursed by non-Federal interests to the United States pursuant to Section 302.

Benefit/Cost Ratio (7⅞ percent interest rate and 100-year economic life): 1.8.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way, relocations and a portion of recreation, environmental quality, and mitigation costs necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

Remarks.—The Committee notes the particular concerns of state and local interests regarding planned improvements in the upstream areas of the plan, specifically those associated with Mentone Dam. Accordingly, although the total plan is authorized, the Corps is directed to acquire land for and to construct only the following elements at this time:

—Improvements of Prado Dam which limit the reservoir taking line to no higher than elevation 566 feet;

—Santa Ana River channel improvements in Orange County;

—Improvements along Santiago Creek;

—Improvements of the Oak Street drain;

—Improvement of the Mill Creek levees;
—Features for mitigation of project effects on and preservation of endangered species; and
—Recreation features in the Chief of Engineer's report for these project elements.

Except for funds established in Title XI, from the Environmental Protection and Mitigation Fund, no appropriation shall be made for acquiring land for, or actual construction of, other elements of the project unless approved by resolutions of the Committee on Public Works and Transportation of the House and the Committee on Environment and Public Works of the Senate. In addition, no land acquisition or construction of such other elements shall be undertaken unless that activity has been agreed to by resolutions of the affected non-Federal sponsoring agencies.

The Committee recognizes the benefit that may accrue through enhanced water conservation activities as a result of this project and encourages the policy of attempting to maximize water conservation in the operation of Prado Dam. Therefore, the Committee encourages the Secretary to insure, whenever possible, that each year at the end of the winter storm and flood season the Corps of Engineers will collect up to 50,000 acre-feet of water behind Prado Dam, and that such water will be released thereafter at a rate that insures maximum use by municipal or regional water districts (approximately 300–400 cubic feet per second), while preserving at all times the riparian rights of landowners below Prado Dam and the property rights of existing leaseholders and/or landowners above Prado Dam.

Under the plan authorized in the bill the segment of the Talbert Valley Channel in Huntington Beach, California, running parallel and adjacent to the Santa Ana River Mainstem will have to be relocated to provide for the widening of the River itself. The Corps' Phase I Report is not specific as to the level of flood protection that will be provided by the Talbert Channel after it is relocated. The Committee directs that the relocated Talbert Channel shall provide at least a capacity sufficient to carry the 100-year flood.

ALENAIO STREAM, HAWAII

Location.—The Alenaio watershed is in the South Hilo District of the island of Hawaii. Hilo is the principal urban center in the South Hilo District and the County seat for the County of Hawaii.

Authority for Report.—Section 209 of the Flood Control Act of 1962.

Description of Recommended Plan.—The recommended plan consists of a modified and realigned concrete-lined channel; floodproofing 11 individual structures and incorporating floodplain management regulations for undeveloped areas.

The new channel will provide standard project flood level protection and will consist of a 1,640-foot rectangular concrete-lined channel 35 to 40 feet wide. Four bridges will also need to be modified to accommodate the new channel.

Eleven structures will be floodproofed. The undeveloped lands above Komohana Street will be regulated by the County to insure that sound floodplain practices are incorporated to minimize future potential flood damages. Lands will need to be obtained by the County and 7 structures will need to be relocated for the realigned channel.

Views of States and Non-Federal Interests.—The County of Hawaii supports the recommended plan, as does the local community.

Views of Federal and Regional Agencies.—No adverse comments regarding plan formulation have been received from affected Federal and Regional Agencies.

Status of Environmental Impact Statement.—The Final Environmental Impact Statement was filed with the Environmental Protection Agency on March 11, 1983.

Project Costs (estimated at October 1982 price levels):

Federal: $5,600,000.

Non-Federal: $2,395,000.

Benefit/Cost Ratio (7⅞ percent interest rate and 100-year economic life): 2.10.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way, relocations, and a portion of floodproofing costs necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, to sustain an adequate flood-warning and floodplain management enforcement program and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

AGANA RIVER, GUAM

Location.—The Agana River drainage basin is located in Agana, the capital and the business and economic center of the Territory of Guam.

Authority for Report.—Section 106 of the River and Harbor Act of 1970.

Description of Recommended Plan.—The reduction of flood hazards and associated flood damages is the most serious water resources problem in the basin. Continued economic growth of the area in recent years has further increased the flood damage potential. The recommended plan consists of a levee system, with the Agana Swamp serving as low-level flood water storage, and associated channel improvements extending seaward to Agana Bay.

Specific structural features of the recommended plan include an approximately 1,700-foot-long channel improvement in consonance with 4,900 lineal feet of levees, and a drainage system to control local and interior drainage. Lands totaling 14.5 acres will be required for construction of the channel and levees, and an additional 360 acres will be required for flowage easements. Regulatory zoning by local interests is required within the flowage easements. The physical output will be control of water damage to 205 acres of land in Agana.

Views of States and Non-Federal Interests.—The Governor of Guam and local communities fully support the project.

Views of Federal and Regional Agencies.—The Departments of Housing and Urban Development, Health, Education and Welfare, Commerce, Agriculture, and Transportation stated that they did not have any objections to the proposed project. The Department of the Interior suggested that additional evaluations be made on possible impacts to endangered species and on possible wetland effects. The Environmental Protection Agency suggested additional assessments be made on water quality and compliance with Guam's governmental regulations.

Status of Environmental Impact Statement.—The Final Environmental Impact Statement was filed with the Environmental Protection Agency on December 4, 1978.

Project Costs (estimated at October 1982 price levels):

Federal: $6,300,000.

Non-Federal: $2,697,000.

Benefit/Cost Ratio (7⅞ percent interest rate and 100-year economic life): 1.4.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way, and relocations necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

LITTLE WOOD RIVER, IDAHO

Location.—In the Lower Wood River Basin, Little Wood River Tributary, at the cities of Gooding and Shoshone, and vicinity.

Authority for Report.—Senate Public Works Committee resolutions adopted April 20, 1948, and August 16, 1952.

Description of Recommended Plan.—Periodic flooding by the Little Wood River is the primary concern of residents in the vicinity of Gooding and Shoshone. Operators of irrigated farms desire additional irrigation water. State fishery officials desire minimum flow in a reach that periodically becomes dry in summer. The project consists of diversion, channel, and ponding facilities in two separate locations to provide off-stream diversions of Little Wood River floodflows into adjacent lava fields via the Dietrich and Milner-Gooding Canals. The floodwater in the ponding areas will eventually be lost by percolation and evaporation.

The standard project flood for the Little Wood River near Shoshone and Gooding produces peak flows of 5,820 cubic feet per second (cfs) and 5,720 cfs, respectively. The offstream diversion and ponding facilities at the Dietrich and Milner-Gooding Canals, included in the recommended plan, will reduce by 86 percent the maximum possible flood damage in the Gooding-Shoshone area. It will protect Gooding and Shoshone from all winter floods that occur more often than one in 67 and 76 years, respectively. For spring floods, the respective occurring intervals will be 77 and 90 years. A composite of both flood types is equivalent to 35-year protection at Gooding and 41-year protection at Shoshone.

Up to 1,500 cfs from the Little Wood River will be diverted through the Dietrich Canal into a new channel to a ponding area. This pond requires a containment dike 6,206 feet long and 18 feet high, with an uncontrolled spillway having a 1,500 cfs capacity. Ponded water will be lost in an estimated 2 weeks through percolation and evaporation.

Structural features for the Milner-Gooding Canal diversion include facilities on the Milner-Gooding Canal designed to divert 600 cfs into the adjacent lava beds. These lava beds are underlain with heavily fractured basalt; therefore, percolation losses are expected to be large and rapid.

Acquisition requirements for flowage easements on Federal (Bureau of Land Management) and state grazing land will total 1,500 acres for both Dietrich and Milner-Gooding Canal diversion plans. Construction of the impoundment for the Dietrich diversion will require the relocation of approximately 2 miles of existing powerline. No relocations will be required for the Milner-Gooding diversion plan.

The Dietrich Canal impoundment would have a full storage of 6,000 acre-feet of water, covering approximately 850 acres of land. The ponding capacity of the Milner-Gooding Canal diversion area is approximately 50 acre-feet.

It is anticipated that a number of brown and rainbow trout will be washed into the Dietrich Canal diversion pond during flooding. These trout will ultimately perish when the water recedes due to seepage and evaporation. Salvage operations to save the fish are not practical. Therefore, these losses will be offset with hatchery-raised fish.

Views of States and Non-Federal Interests.—The State of Idaho does not oppose the project. The Cities of Shoshone and Gooding, and Gooding and Lincoln Counties affirmed their support for the project and their intent to provide the necessary items of non-Federal participation.

Views of Federal and Regional Agencies.—The Department of the Interior recommended a $15,000 post-project study to determine if fish losses will be greater than anticipated.

Status of Environmental Impact Statement.—A Final Environmental Impact Statement was filed with the Council on Environmental Quality on November 27, 1978.

Project Costs (estimated at October 1982 price levels):

Federal: $3,750,000.[1]

Non-Federal: $1,027,000.[1]

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[1] These costs include $667,000 to be reimbursed by non-Federal interests to the United States pursuant to Section 302.

Benefit/Cost Ratio (7⅞ percent interest rate and 100-year economic life): 2.6.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way, relocations, and a portion of mitigation costs as necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the

United States free from damages other than those due to the fault or negligence of the United States or its contractors.

Remarks.—The Committee notes the concern of the Department of the Interior regarding possible fish losses associated with the project. Accordingly, the Secretary is directed, upon completion of the project, to evaluate and monitor the extent of any fish losses that are attributable to the project and to undertake such additional mitigation measures as the Secretary determines appropriate. The project authorization includes any such additional measures.

YAKIMA-UNION GAP, WASH.

Location.—Within Yakima County, Washington, along approximately 8.5 miles of the Yakima River, between the confluence of the Naches and Yakima Rivers, downstream to a physical feature known as Union Gap. The cities of Yakima and Union Gap are just west of the project.

Authority for Report.—Senate Public Works Committee resolutions adopted July 27, 1962, and July 13, 1966.

Description of Recommended Plan.—Despite existing flood protection, a residual flood threat remains, resulting in average annual flood damages of $1,170,000. Recent flooding occurred in 1975 and 1977. Residents of the Yakima River flood plain desire additional flood protection. The recommended plan consists of raising and providing additional riprap armor protection for existing levees previously constructed by the Corps and the Bureau of Reclamation, constructing new levees, and control of development in unprotected lands. A total of 3,310 acres would be provided about 200-year protection.

Along the Yakima River upstream of the Moxee Bridge, 4.9 miles of existing levees will be raised on both riverbanks to provide adequate freeboard above the 200-year flood. Riprap will be added to 6.2 miles of these levees. Downstream of Moxee Bridge 4.1 miles of new levees will be constructed on both riverbanks to provide 200-year protection. One-half mile of riprap will be provided along Interstate Highway 82, and control structures will be added on Spring Creek culverts to provide 100-year protection to Union Gap. A higher level of protection would require raising the interstate highway and is not economically justified.

Local interests will control development to reduce future flood damages in 2,300 acres of unprotected floodway lands, about 800 acres of which lie downstream of the Moxee Bridge.

Permanent additional right-of-way needed for the levee will total about 24 acres, with an additional 5 acres of temporary easements required during construction. Permanent easements will be required for about 50 acres of land used as ponding areas. Relocations associated with the project include modifications to existing drainage ditches and road alterations where existing streets cross the levee alignment.

Views of States and Non-Federal Interests.—The State of Washington has endorsed the proposal. The City of Yakima, County of Yakima, and Washington Highway Commission have all expressed their support for the project.

Views of Federal and Regional Agencies.—The Department of the Interior stated that the impacts of the project to fish and wildlife resources should be assessed during the advanced engineering and design stage of the project.

The Department of the Interior also stated that a reexamination should be made regarding adding recreation to the plan as a project purpose and that consultation under Section 7 of the Endangered Species Act should be initiated. A biological assessment will be conducted in accordance with the Endangered Species Act during post-authorization design.

Status of Environmental Impact Statement.—Notice of the availability of the final environmental impact statement was published by the Environmental Protection Agency in the Federal Register on May 22, 1981.

Project Costs (estimated at October 1982 price levels):

Federal: $8,640,000.[1]

Non-Federal: $2,205,000.[1]

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[1] These costs include $2,025,000 to be reimbursed by non-Federal interests to the United States pursuant to Section 302.

Benefit/Cost Ratio (7⅞ percent interest rate and 100-year economic life): 1.7.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way, and relocations necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, to control development on the unprotected floodplain and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

Remarks.—The Committee notes the concerns of the Department of the Interior regarding the potential effects of the project on fish and wildlife resources and the potential for including recreation as a project purpose. Therefore, the Secretary is required, within one year of enactment of this Act, and in consultation with appropriate Federal, State, and local agencies, to review such potential effects and the feasibility of including recreation as a project purpose and to transmit a report of such review to the House Committee on Public Works and Transportation and the Senate Committee on Environment and Public Works. Such report shall include the Secretary's recommendations including those for additional measures to mitigate adverse effects of the project on fish and wildlife habitat. The project authorization includes such modifications recommended by the Secretary.

CHEHALIS RIVER, WASH.

Location.—In Southwestern Washington; near the mouth of the Chehalis River, located in Aberdeen and Cosmopolis at the eastern end of Grays Harbor.

Authority for Report.—House Flood Control Committee resolution adopted April 19, 1946.

Description of Recommended Plan.—Flood protection is needed in South Aberdeen and Cosmopolis, Washington, against recurrent flooding from high Chehalis River discharges combined with extreme water levels caused by tides in the Grays Harbor estuary. A recurrence of the flood of record, December 1933 (a 77-year event), would cause an estimated $12,800,000 in damage under 1982 prices and conditions. The recommended plan consists of constructing levees, floodwalls, and pumping plants to provide standard project flood protection for South Aberdeen and Cosmopolis. The District and Division reports recommended only a 200-year level of protection.

The levee system will be 4.7 miles long and will be constructed to provide Standard Project Flood protection to 1,318 acres in Aberdeen and Cosmopolis. To accommodate interior drainage, five pumping stations with tide gates and 10 gravity drains with tide gates will be included.

Permanent right-of-way needed for the levee and pumping plants will total about 51 acres, with an additional 7 acres of temporary easements required during construction. Relocations associated with the project will include three residences and one barn, and road alterations will be required where existing streets cross the levee alignment.

Views of States and Non-Federal Interest.—The State of Washington indicated that proper landscaping could provide space for hiking. It was concerned about additional losses of habitat from the use of underdeveloped areas for dredged material disposal sites, possible water quality degradation during construction, and the effect the levee would have on upstream flood plains. The Corps has determined that the levee's effects on upstream flooding will be negligible. The other concerns will be addressed during preconstruction planning. The Cities of Aberdeen and Cosmopolis expressed their support for the project.

Views of Federal and Regional Agencies.—The Department of the Interior expressed concern over foundation conditions, dredged material disposal, recreational opportunities, and wetland impacts. These concerns will be considered, as appropriate, during preconstruction planning.

Status of Environmental Impact Statement.—The Final Environmental Impact Statement was filed with the Council on Environmental Quality on November 20, 1978.

Project Costs (estimated at October 1982 price levels):

Federal: $19,300,000.[1]

Non-Federal: $5,090,000.[1]

[1] These costs include $4,030,000 to be reimbursed by non-Federal interests to the United States pursuant to Section 302.

Benefit/Cost Ratio (7⅞ percent interest rate and 100-year economic life): 1.2.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way, and relocations necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, to provide sandbagging freeboard at two railroad crossings, to control future increases in interior drainage runoff, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

Remarks.—The Committee notes the Department of the Interior's concern regarding foundation materials in the project area and dredged material disposal sites. Accordingly, the Secretary is directed to perform additional studies on these matters prior to initiation of construction and shall make such modification as the Secretary determines appropriate.

CENTRALIA, WASH.

Location.—On the Skookumchuck River in southwestern Washington.

Authority for Report.—House Flood Control Committee resolution adopted April 19, 1946.

Description of Recommended Plan.—Flood damages occur in the Skookumchuck River Valley, including Centralia and Bucoda, due to recurrent flooding from high Skookumchuck River discharges. Major damaging floods generally during the winter season, usually from November through February. Average annual flood damages in the area under existing conditions are estimated at about $3,000,000. The recommended plan consists of modifying the water supply dam owned by Pacific Power and Light Company on the Skookumchuck River to provide flood control storage during the flood season. This storage will reduce average annual flood damages in the Skookumchuck River Valley, including the cities of Bucoda and Centralia, by about 70 percent.

The existing Skookumchuck Dam is a compacted earthfill embankment on a curved axis about 160 feet high and 1,340 feet long. The spillway is an ungated side channel type with an open concrete chute ending in a still basin. The capacity of the existing low level outlet in about 200 cubic feet per second (cfs). Modifications to provide flood control storage will include construction of a 12-foot-diameter, 1,200-foot-long outlet tunnel and addition of a 17-foot-high by 136-foot-wide bascule gate to the ungated spillway.

The City of Centralia will continue to participate in the National Flood Insurance Program; administer and enforce flood plain regulations to prevent undue increase in flood damage potential, prevent unwise future development in the flood plain and insure compatibility between future development and protection levels provided by the project; and publicize flood plain information in the area concerned and annually inform affected interests regarding the limitations of the protection afforded by the project.

The recommended plan will provide a minimum of 17,000 acre-feet of flood control storage during the flood season, with 28,500 acre-feet provided in November and December. This storage will significantly reduce flooding along the Skookumchuck River, and provide some flood reduction on the Chehalis River. For example, the project will reduce the 200-year flood on the Skookumchuck River to the equivalent of a nondamaging 4-year event. On the Chehalis River the project will lower the 200-year flood water surface by 0.5 feet. Minimum flows from the dam will continue to be governed by the existing fishery flow agreement between Pacific

Power and Light and the Washington Department of Fisheries, and would not be significantly affected by the plan.

Mitigation features of the recommended plan include the acquisition of 50 acres of land contiguous with the existing 966-acre Skookumchuck Wildlife Management project (which was created to mitigate for initial construction of the dam and reservoir) and the transfer of that land to the Washington Department of Game for wildlife conservation. Mitigation features of the recommended plan also include the purchase, installation, and maintenance of 30 wood duck nesting boxes along the Skookumchuck River downstream of the dam.

Views of States and Non-Federal Interests.—The City of Centralia and Lewis and Thurston Counties support the proposed dam modification. The State of Washington has not expressed opposition to the recommended plan.

Views of Federal and Regional Agencies.—The Environmental Protection Agency and Department of the Interior generally concur with selection of the recommended plan. The Department of the Interior did, however, express concern relating to potential project impacts on salmon, steelhead trout, and wetlands. These issues will be reconsidered by the Corps during preconstruction planning.

Status of Environmental Impact Statement.—The Draft Final Environmental Impact Statement was filed with the Environmental Protection Agency on October 1, 1982.

Project Costs (estimated at October 1982 price levels):

Federal: $18,200,000.[1]

Non-Federal: $4,550,000.[1]

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[1] These costs include $4,550,000 to be reimbursed by non-Federal interests to the United States pursuant to Section 302.

Benefit/Cost Ratio (7⅞ percent interest rate and 100-year economic life): 1.5.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way, and relocations necessary for the project's construction. Non-Federal interests will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

Subsection (b) of Section 301 authorizes and directs the Secretary to construct, at full Federal expense, a project for flood damage reduction and recreation in the vicinity of Falmouth, Kentucky. This statutory language is in purpose and effect meant to modify the project for flood control and related purposes on the Licking River, Kentucky, authorized by the Flood Control Acts approved June 22, 1936 (49 Stat. 1570), and June 28, 1938 (52 Stat. 1215).

Subsection (b) also authorizes the construction of a project for the control of destructive floodwaters at Salyersville, Kentucky, located on the Licking River in northeastern Kentucky. Salyersville has a long history of annual flooding from the Licking River, Burning Fork, and State Road Fork, and local interests need flood protection. A recurrence of the December 1978 flood would cause an estimated $2.7 million in flood damage.

In view of the present threat to life and property from flooding in Salyersville, the Committee has directed that the Corps shall design and construct, at full Federal expense, such flood control measures on the Licking River in the vicinity of Salyersville, Kentucky, as the Corps determines necessary and appropriate to provide the City of Salyersville, Kentucky, and its immediate environs a level of flood protection at least sufficient to prevent any future losses to such City from the likelihood of flooding such as occurred in the flood of December 1978.

Non-Federal interests will be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

Subsection (b) also makes a Congressional finding that the benefits attributable to each of the flood control projects for Salyersville and Falmouth exceed the costs of such projects.

Subsection (c) of Section 301 authorizes the construction of a project for the control of destructive floodwaters in the Gold Gulch community of California, in Santa Cruz County, California. The threat of flooding, which has faced this area for more than 50 years, became a reality once again during the disastrous storms of January 1982. The community was severely damaged by the flooding, which forced the evacuation of area residents. An earthen bank, which apparently was constructed in the 1940's as a disposal convenience incidental to a channel clearing operation authorized in the Flood Control Act of 1937, but which previously provided flood protection for this area, was damaged beyond repair. Presently, every sizable amount of rainfall threatens the life and safety of area residents.

The Corps of Engineers has worked closely with county officials and local residents seeking to provide proper flood protection for the Gold Gulch area. The Corps has entered into an agreement and developed a Flood Fight Plan which is activated when flooding is imminent. However, a permanent flood control project is vitally needed in order to effectively control the flood potential of this area.

In view of the present threat to life and property from flooding in the Gold Gulch community, the Committee has provided that the Secretary is authorized to construct, a project for the prevention of flood damage in the community of Gold Gulch at an estimated cost of $6 million and in accordance with costs sharing provisions of Section 302.

Project Costs:

Federal: $6,000,000.

Non-Federal: $1,500,000.

Non-Federal Responsibilities: Non-Federal interests will be required to provide lands, easements, rights-of-way, and relocations necessary for the projects' construction. They will also be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

Subsection (d)(1) of Section 301 authorizes the construction of a project for the control of destructive floodwaters in the Pearl River Basin, St. Tammany Parish, Louisiana.

The Secretary is authorized and directed to undertake at Federal expense such structural and nonstructural measures as he deems feasible to prevent flood damage to communities in the Pearl River Basin, St. Tammany Parish, Louisiana, at an estimated cost of $25,000,000. Non-Federal interests will be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

The City of Slidell and other communities in St. Tammany Parhish, Louisiana, have experienced severe flood problems resulting from high stages on the Pearl River. In April 1983, record stages occurred, devastating numerous businesses and as many as 200 homes, causing over $100,000,000 in damages. Preliminary investigations by the Corps of Engineers indicate that a number of measures could reduce flood damages, including channel modifications, levees, drainage structures and bridge modifications. The Secretary is directed to expedite measures to reduce this flooding problem.

The works authorized in the bill are located in the same area being addressed in the Corps' study entitled "Pearl River Basin, Mississippi and Louisiana." For purposes of analyzing the costs and benefits of any project recommended by the Secretary as a result of such study, the Secretary shall include the costs and benefits of measures undertaken pursuant to this subsection.

Subsection (d)(2) of Section 301 authorizes the construction of projects for the control of destructive floodwaters along the Amite, Comite, Tangipahoa, Tchefuncte, Tickfaw, Bogue Chitto, and Natalbany Rivers, in Louisiana.

The Secretary is authorized and directed to design, construct, and undertake at Federal expense such measures as the Secretary determines are necessary to provide a level of protection sufficient to prevent recurring flood damages along the Atime, Comite, Tangipahoa, Tchefuncte, Tickfaw, Bogue Chitto, and Natalbany Rivers, at an estimated cost of $25,000,000. Non-Federal interests will be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

Areas in southeastern Louisiana along the seven named rivers experience severe flooding caused by rainfall from hurricanes, tropical storms, and intense local thunderstorms. In April 1983, widespread flooding was experienced on these rivers resulting from a storm of an an estimated frequency of once in forty years. The authorized works are to be located in areas being addressed in studies for the Pearl River Basin and the Amite-Comite Rivers. In order to reduce flooding damages at the earliest possible date, the Secretary is directed to expedite measures authorized in the bill as he determines to be feasible, while continuing such studies, which might result in recommendations for additional work.

Subsection (e) of Section 301 authorizes and directs the Secretary to purchase such land along Highway 75 in Minnesota as may be required for the construction of the International Levee segment of the Emerson, Manitoba, flood control project and to upgrade existing flood control levees in the vicinity of Noyes, Minnesota. There has been a history of flooding problems at the border area between Noyes, Minnesota, and Emerson, Manitoiba, Canada. A flood control project is under planning and construction primarily by the Canadians. In order to make it totally effective, an International Levee segment is planned. Canada will be responsible for constructing this levee, including the portion on the U.S. side. The U.S. contribution will be the purchase of the land necessary along Highway 75 to construct the levee. In addition, full protection requires improving existing levees in the vicinity of Noyes, Minnesota. The cost of both acquiring the land and upgrading the levees is estimated to be $200,000.

Subsection (f) of section 301 provides that, for any project authorized in subsection 301(a), Title III, where a final report of the Chief of Engineers has not been completed on the date of enactment of the Act, the Secretary shall, within one year of the date of enactment, submit a copy of any required final environmental impact statement to the House Committee on Public Works and Transportation and the Senate Committee on Environment and Public Works. Any recommendations of the Secretary with respect to the project are also to be submitted. No appropriation may be made for the acquisition of land for, or the actual construction of, the project unless such acquisition and construction are approved by resolutions of the two Committees. This prohibition does not apply to funds appropriated to the Environmental Protection and Mitigation Fund pursuant to Section 1104. Monies in this fund may be expended to mitigate losses to fish and wildlife production and habitat prior to adoption of the Committee resolutions.

Subsection (g) of Section 301 authorizes the construction of a project for the control of destructive floodwaters at Calleguas Creek, California.

The Calleguas Creek and its tributaries drain a 325-square-mile area in Ventura County. The Calleguas Creek Basin is one of the fastest growing areas in California.

The Creek's existing flood control system was constructed by the Soil Conservation Service between 1952 and 1960, and consists largely of earth-bottom channels surrounded by levees designed to handle maximum flows of 15,000 cubic feet per second. Since 1960, when these channels were designed and constructed, the total upstream population has escalated from 15,000 to 250,000, drastically increasing the runoff into the Creek. By the year 2000, the population is projected to be nearly 500,000. In addition to runoff, the Creek now handles effluent from four sewage treatment plants, one of which poured enormous quantities of raw sewage into streets and then farmlands when it was damaged by flooding in March of 1983.

Nothing has been done to upgrade the downstream channels, which are now grossly inadequate to handle anticipated flood flows.

The result has been two major floods in the past three years. The first of these floods, in 1980, inflicted as estimated $25 million in damage to private property and the Point Mugu Naval Base, forcing the evacuation of 3,000 people from Point Mugu. Peak flows in the 1980 flood reached 25,000 cubic feet per second, causing several portions of the levees to blow out in places where even the channel bottom is elevated above the surrounding farmland. The entire flow from the watershed was then diverted across those farmlands toward the Naval Base.

The most recent flood, on March 1, 1983, caused an estimated $32 million in damages to upstream urban areas, downstream agricultural lands, government property, and to the channels themselves. Although the peak discharge during this flood has not yet been determined, it clearly exceeded the channel's capacity. The inundation of the fertile agricultural lands in the area, which ordinarily grow three crops a year, had effects on the price of produce to consumers throughout the country.

These recent floods have also demonstrated that the flooding in Calleguas Creek is not a freak event, but a structural problem destined to repeat itself. Unless immediate remedial action is taken, new floods will cause devastation and require repeated wasteful ad hoc repairs.

Unless structural improvements to the Calleguas Creek are undertaken, disasters such as the 1980 and 1983 floods can be expected to repeat themselves in the near future with increasing frequency. The population of the Calleguas Creek Basin is expected to continue to grow at a rapid pace. Moreover, the Creek's channels are continually becoming clogged by silt and debris deposited during storms, further decreasing their capacity. As time goes by, the problem will worsen and the solution will continue to become more expensive.

Subsection (g) of Section 301 authorizes the Secretary to undertake flood control works along the lower portion of Calleguas Creek, Conejo Creek to the Pacific Ocean, California at an estimated cost of $40,000,000 and in accordance with the cost sharing provisions of Section 302.

Project Costs:

Federal: $40,000,000.

Non-Federal: $10,000,000.

Non-Federal Responsibilities.—Non-Federal interests will be required to provide lands, easements, rights-of-way and relocations necessary for the projects' construction. They will be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault of negligence of the United States or its contractors.

Subsection (h) of Section 301 authorizes the construction of a project for the control of destructive floodwaters at Coyote Creek, and Guadalupe River, in California.

The Secretary is authorized to undertake appropriate local flood control and protection measures along the downstream portions of Coyote Creek in the Alviso vicinity of San Jose, California, and along the Guadalupe River in the vicinity of San Jose.

Severe floods are experienced in the project area, aggravated by gradual but continual land subsidence. Despite local efforts to avoid flooding, flooding problems continue. Severe flooding was experienced in both 1982 and 1983, causing approximately $20,000,000 in damages. Inadequate levees pose a great threat to the area. Expedient action, such as levee construction along both Coyote Creek and Guadalupe River is urgently needed to prevent further severe losses.

Non-Federal interests are diligently pursuing solutions to flood problems in the area. Accordingly, the Secretary is directed to include any local flood protection work carried out by non-Federal interests after January 1, 1983, and before the date of enactment, as part of the non-Federal contribution to the project; provided the Secretary determines that such work is reasonably compatible with authorized measures. Costs and benefits resulting from such work performed by non-Federal interests shall be included for purposes of determining the economic feasibility of such measures recommended by the Secretary. The cost-sharing provisions of Section 302 of this Title shall apply to the project recommended by the Secretary. Non-Federal interests will be required to provide lands, easements, rights-of-way, and relocations necessary for the project's construction, to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

Subsection (i) of Section 301 authorizes the construction of a project for the control of destructive floodwaters at Monroe and West Monroe, Louisiana.

The Secretary is authorized and directed to undertake at Federal expense such structural and nonstructural measures as he deems feasible to prevent flood damage to the Cities of Monroe and West Monroe, Louisiana, and Ouachita Parish, Louisiana, at an estimated cost of $20,000,000. Non-Federal interests will be required to assure maintenance and repair during the useful life of the works as required to serve the project's intended purposes, and to hold and save the United States free from damages other than those due to the fault or negligence of the United States or its contractors.

The Committee notes that despite the existing flood control works, serious flood problems persist in the Cities of Monroe and West Monroe, Louisiana and outlying areas. For example, during the period from December 25 to December 28, 1982, over 11 inches of rainfall resulted in damages estimated to exceed $42,000,000 in the metropolitan area. Ongoing investigations by the Vicksburg District Engineer indicate that a number of measures could reduce flood damages, including channel modifications, pumping plants, new levees, and upgrading existing levees. Of the $42,000,000 in damages experienced in late 1982, as much as $35,000,000 could have been prevented with corrective measures in place. The Secretary is directed to expedite measures to reduce this flooding problem.

The authorized works will be located in the same area being addressed in the study entitled "Monroe-West Monroe Interim Study of the Ouachita Basin Study, Ouachita River Basin, Arkansas and Louisiana." For purposes of analyzing the costs and benefits of any project recommended by the Secretary as a result of such study, the Secretary shall include the cost and benefits of measures undertaken pursuant to the subsection.

Subsection (j) of Section 301 makes inapplicable any provision in any of the reports designated in Title III which recommends that a State contribute, in cash, 5 percent of the construction costs allocated to non-vendible project purposes and 10 percent of the costs allocated to vendible project purposes. Such contributions were included in some Corps of Engineers reports on water resources projects during the preceding Administration. The Committee has adopted a cost sharing policy for local flood protection projects, which is set forth in section 302. Section 301(j) is designed to remove any doubt as to whether the recommendations for 5 and 10 percent cash contributions are still applicable.

SECTION 302

The 1936 Flood Control Act, as amended, requires that in the case of local flood protection project, non-Federal interests shall provide necessary lands, easements, rights-of-way and relocations, hold and save the United States free from damages due to the project, and operate and maintain the project after completion.

The non-Federal share of the costs of these projects varies widely, depending on the value of the lands to be acquired, the amount of lands needed for the project and the quantity and types of relocations required for the project, such as roads, bridges, utilities and structures. It is important to note that all of these critical factors vary based on proximity to urban and rural areas, regional location and the relative economic wealth of the surrounding locale. For the projects included in subsection (a), of Section 301, for example, non-Federal costs under traditional cost sharing principles ranged from less than 5 percent to more than 50 percent.

The Committee determined that it was neither logical nor equitable to base cost sharing on accidents of geography and the extent of development, and has included a new, uniform costs sharing formula for local flood protection projects. The establishment of such a formula will ensure that regional needs are addressed with fairness, and will result in the equitable distribution of national water resources investments where needed throughout the Nation.

Subsection (a) of Section 302 establishes Federal and non-Federal cost sharing for local flood protection projects. These are projects which protect specific, localized areas where the beneficiaries of the project are readily identifiable.

The non-Federal share of any project for local flood protection which is authorized by section 301(a) of this title, or which is authorized by any other law enacted before the date of enactment of this bill and for which a contract for construction has not been entered into as of the date of enactment, is established as 25 percent.

Paragraph (2) of subsection (a) places a cap of 30 percent on the non-Federal share when the costs of the lands, easements, rights-of-way and relocations exceed 25 percent of the project costs. In the case of non-structural projects, the non-Federal share will be 25 percent, as provided in paragraph (1) of subsection (a). The major portion of the costs of non-structural projects are land costs, and applying the 30 percent cap to them would act in some cases as a disincentive to the consideration of non-structural alternatives.

Subsection (b) provides that if the Secretary estimates before construction that the costs of lands, easements, rights-of-way and relocations will exceed 30 percent of the project costs, the Secretary shall, upon request of the non-Federal interests, acquire lands, easements and rights-of-way and perform necessary relocations to the extent the costs of these items exceed 30 percent of the cost of the project (25 percent in the case of a non-structural project). With this provision, the non-Federal interests, at their option, can avoid having to pay more than their required share and then having to wait for reimbursement.

Subsection (c) provides that if the Secretary determines after project completion that the costs of the lands, easements, rights-of-way and relocations provided by the non-Federal interests are less than 25 percent, the non-Federal interests, shall pay the amount necessary to meet the required non-Federal share, with interest, over a period of 15 years, beginning after completion of the project and the Secretary's determination.

Subsection (c) also provides that if the costs of lands, easements, rights-of-way and relocations furnished by the non-Federal interests exceed the non-Federal share, the Secretary shall pay to the non-Federal interests an amount equal to the excess, with interest.

Subsection (d) provides that the Secretary shall transfer to the non-Federal interests any lands, easements, and rights-of-way acquired by the Secretary under subsection (b). Local flood protection projects are generally constructed on lands owned by non-Federal interests, and this provision gives the Secretary the needed authority to transfer to them lands which were acquired on their behalf.

Subsection (e) establishes the interest rate to be used for repayment of costs under section 302.

Subsection (f) provides that, for purposes of section 302, the cost of a project includes, but is not limited to, the value of lands, easements, rights-of-way and the costs of relocations necessary to carry out the project. This makes it clear that these items are included in the total project costs, as well as Federal costs such as costs for construction, in determining the amount of the non-Federal share. Also, the value of lands, easements, and rights-of-way furnished by non-Federal interests shall be their value on the date on which actual construction of the project is begun. Non-Federal interests may have acquired lands many years before project construction. The proper credit to be given toward the non-Federal share is the present value of the lands. The value of lands acquired by the Secretary is the price paid for them.

Subsection (g) of section 302 provides a means for non-Federal interests to proceed with measures for flood control without jeopardizing the economic evaluation of a more comprehensive project studies by the Corps of Engineers. When the Secretary analyzes the costs and benefits of a proposed flood control project, he is to take into account the costs incurred in and the benefits produced by any local flood protection work carried out by non-Federal interests. The Secretary must determine that the non-Federal work can reasonably be expected to be compatible with the project being considered by the Secretary. A cut-off date is established for non-Federal work to be considered. It must be carried out within the five-year period preceding the date of enactment of this bill, or within the five-year period preceding the first obligation of funds for the Corps' study, whichever is later. These provisions do not apply to any study for a project if that project is authorized for construction by this bill or a prior Act.

Paragraph (2) of subsection (g) provides that the cost of any non-Federal local flood protection work which is part of an authorized project shall be credited as part of the non-Federal contribution for the project. The non-Federal work must be carried out after the date of the project authorization or after the date of enactment of this bill, whichever is later.

Where non-Federal interests carry out local flood protection work prior to authorization of a project and after the first obligation of funds for the Corps study of the project, the Secretary is directed to recommend in any report submitted to Congress relating to the project that the cost of the non-Federal work be included as part of the non-Federal contribution if the Secretary determines that the work is reasonably compatible with the proposed project. This provision does not apply to non-Federal work carried our prior to the five-year period preceding the date of enactment of this bill.

Subsection (g) thus provides a comprehensive mechanism to encourage non-Federal interests to undertake local flood protection work in order to alleviate flood damages in the period preceding authorization and construction of a Federal project, and to ensure that they will not be penalized for doing so. If non-Federal interests perform work prior to a study, the benefits and costs are included in the study. This is important because the local work often is the first increment which captures many of the benefits for a relatively low cost, and the Corps would otherwise be able only to consider remaining benefits and remaining costs, which would adversely affect the benefit-to-cost ratio.

If the non-Federal interests perform the work during the study, the project report is to include a recommendation that it be counted toward the local share.

Finally, if the non-Federal interests construct part of an authorized project, their costs are to be credited toward their required contribution.

SECTION 303

This section requires that non-Federal interests agree to participate in and comply with applicable flood plain management and flood insurance programs before construction of any project for local flood protection is commenced. This formal agreement will provide added assurance of compliance with these programs.

TITLE IV

SHORELINE PROTECTION

SECTION 401

This section authorizes 15 projects for the protection of shorelines. Descriptions of the projects follow.

ROCKAWAY INLET TO NORTON POINT, N.Y.

Location.—South shore of Long Island in Brooklyn (Kings County), New York, approximately nine miles south of the New York City Battery.

Authority for Report.—Section 2 of Public Law 71-520, approved July 3, 1930, as amended, and Public Law 71-84, approved June 15, 1955, (hurricane protection).

Description of Recommended Plan.—The recommended plan provides for beach erosion control by restoring the Coney Island public beach to its historic shoreline; extending the westerly terminal groin, and constructing a terminal groin at the easterly end of the restored beach. The groins would include walkways and railings for recreational fishing. The recommended plan also provides for maintenance of the restored beach by periodic beach nourishment. No plan is recommended for protection against hurricane tidal flooding, due to the lack of local support for the plans found economically feasible.

Physical Data on Project Features:

Structural

(1) 2½ miles of beach fill restoring the beach 80 feet beyond the existing shoreline.

(2) A terminal groin at each end of the fill, one 510 feet long and one 640 feet long.

(3) Periodic nourishment.

Recreation

(1) Current beach recreation capacity (per day) 132,800.

(2) Improved beach recreation capacity (per day) 156,200.

Views of States and Non-Federal Interests.—The State of New York gave assurances to cooperate in the recommended plan. The State also indicated that the City of New York believes the recommended plan falls short of its recreational needs in this area. The State and City prefer the beach erosion control plan, Plan II, which includes beach fill up to 250 feet beyond the historical shoreline.

Views of Federal and Regional Agencies.—No significant issues were raised.

Status of Final Environmental Impact Statement.—The Final EIS was filed with the Environmental Protection Agency on November 27, 1978.

Project Costs.—

Federal: $9,700,000.

Non-Federal: $9,700,000.

Benefit/Cost Ratio.—1.2.

Remarks.—The Committee has included in the project authorization beach fill up to 250 feet beyond the historic shoreline. This plan maximizes the benefits of the project and will enable it to better serve the needs of the metropolitan area. The non-Federal share of the cost of construction and nourishment of the additional beach fill is established at 50 percent, the same as for the other portion of the project, in view of the fact that the shore is public. Federal law provides for 50 percent cost sharing for protection of public shores.

CAPE MAY INLET TO LOWER TOWNSHIP, N.J.

Location.—The study area is located on the Atlantic Coast of New Jersey, approximately 38 miles southwest of Atlantic City.

Authority for Report.—Section 101(a) of the Water Resources Development Act of 1976.

Description of Recommended Plan.—This recommended plan consists of a weir—breakwater at Cape May Inlet with construction being deferred pending demonstration of need, and improvements in Cape May City consisting of beachfill, two new groins, maintenance of the two new and seven existing groins, periodic beach nourishment obtained from a deposition basin located on the northeast side of the inlet, and a shoreline monitoring program for Lower Township.

Physical Data on Project Features.—

Structural

(1) Weir-breakwater—2,560-linear-foot rubble mound structure which will function to provide wave protection to dredging equipment working in the deposition basin during sand bypassing operation to trap littoral material for periodic beach nourishment, and stabilize the updrift shoreline. Construction of this feature recommended in a deferred status pending demonstration of need.

(2) Beachfill—section will have an elevation of 8 feet above National Geodetic Vertical Datum (NGVD) and will vary in width from 25 to 180 feet with a foreshore slope of 1 on 25. This will be the primary feature of the project serving to mitigate for shore damages (erosion) caused by the Federal navigation project at Cape May Inlet.

(3) Seven existing and two new groins, varying in length from 360 to 786 feet will serve to stabilize the Cape May shoreline, maintain the beachfill design section and minimize the periodic nourishment requirement for the project.

Recreation

Peak day recreational beach useage in Cape May City is expected to increase from 25,300 to 47,000 visitor days (ultimate capacity) by the 27th year of the project.

Views of States and Non-Federal Interests and Other Counties.—The State of New Jersey concurred with the Chief of Engineers' recommendation. The project is also supported by county government, Cape May City, and the general public.

Views of Federal and Regional Agencies.—The Department of the Interior expressed disapointment with the recommendation of the

Chief of Engineers, but did not object to the recommended plan. The Environmental Protection Agency concurred with the Corps' ranking of beachfill borrow sites and suggested that more than one site be used for project construction.

Status of Final Environmental Impact Statement.—The Final EIS was submitted to CEQ on June 8, 1976. The Final Supplement to the Final EIS was filed with EPA on August 6, 1981.

Project Costs.—

Federal: $40,000,000.

Non-Federal: $7,200,000.

Benefit/Cost Ratio.—1.1.

Remarks.—The proposed project will enhance community aesthetics through restoration and maintenance of the beach, protect the Cape May Historic District from possible future erosion, and provide additional aquatic habitat.

The Committee has included as part of the project the area from Cape May Inlet to Lehigh Avenue in Cape May Point Borough. Cape May City and Lower Township are suffering severe erosion problems. Lower Township contains a bird sanctuary and supports Federal lands which the State of New Jersey manages as a State Park. The area also serves a residential community for many retired persons. The Committee considers it an appropriate project.

ATLANTIC COAST OF MARYLAND (OCEAN CITY)

Location.—Fenwick and Assateague Islands form the Atlantic coast of Maryland, extending in a north-south direction from Delaware Bay, Delaware, to Chincoteague Inlet, Virginia.

Authority for Report.—House Public Works Committee Resolution adopted in June of 1963; Senate Public Works Committee Resolution adopted February 3, 1967.

Description of Recommended Plan.—The recommended plan for Ocean City consists of widening and raising the beach, and constructing a dune line and sheet pile bulkhead.

Physical Data on Project Features.—33,500 feet of sand dune and 9,600 feet of steel sheet pile bulkhead will provide 100-year storm protection. A beach width of 165 feet will be provided to insure the integrity of the dune and for beach erosion control.

Views of States and Non-Federal Interests.—The State of Maryland concurred with the proposed Chief's report. The State of Maryland stated its intention to provide the necessary items of non-Federal participation.

Views of Federal and Regional Agencies.—The Department of the Interior had no objections to the report. The Environmental Protection Agency had no objections to the project.

Status of Environmental Impact Statement (EIS).—The Final EIS was filed May 22, 1981.

Project Costs.—

Federal: $20,000,000.

Non-Federal: $11,600,000.

Benefit/Cost Ratio.—2.5.

Remarks.—Major portions of the beaches of Ocean City, Maryland, have been subjected to erosion, which has averaged over two feet per year. This entire reach of shoreline is subject to severe damage from high tides and wave attack during major storms, such as the storm of 1962 and the hurricane of 1933.

WILLOUGHBY SPIT, VA.

Location.—The Willoughby-Ocean View study area is 7.3 miles of shoreline along the southern shore of the Chesapeake Bay, in the City of Norfolk, Virginia.

Authority for Report.—Resolution adopted September 15, 1971, by the Senate Public Works Committee.

Description of Recommended Plan.—The project would protect the shore from erosion by building up the beach with sand. The sand would be replenished periodically. This project would extend from the tip of Willoughby Spit to Little Creek Inlet, a distance of 7.3 miles. The source of the sand would be the Thimble Shoal-Horseshoe Bank area in the Chesapeake Bay. The plan would also include five nonstructural measures, including the development of open space for uses compatible with the potential flood hazard, and the placement of warning signs on the flood plain. It also would include the continuation of Norfolk's participation in the National Flood Insurance Program, and continued use of flood plain and subdivision regulations. There would be further review and development of an improved forecasting, warning, and temporary evacuation system. Periodic beach surveys would also be accomplished.

Views of States and Non-Federal Interests.—There are no objections to the selected plan based on comments received from State and local agencies on the draft feasibility report and Final Environmental Impact Statement. Reactions of State and local officials at the Stage III public meeting were favorable. The City of Norfolk has submitted a letter of intent regarding the items of local cooperation.

Views of Federal and Regional Agencies.—There are no objections to the recommended plan from any Federal or regional agency. Several comments were received concerning suggested time of year restrictions on dredging at the selected borrow site, the need for biological monitoring and other engineering, economic, environmental, social, and cultural studies during advanced engineering and design stage. In addition, concern was expressed about the potential impacts of proposed non-Corps projects on the recommended plan. In each case, explanations were made, and the report revised where appropriate.

Status of Final Environmental Impact Statement.—The Final Environmental Impact Statement was filed with the Environmental Protection Agency on October 7, 1983.

Project Costs.—

Federal: $1,558,600.

Non-Federal: $1,722,600.

Benefit-Cost Ratio.—1.6.

Remarks.—The Willoughby-Ocean View area face two related problems. First, it is vulnerable to flood and wave damages from hurricanes and northeasters, and second, it is subject to beach erosion. Over the past several years, the local government and individual property owners have made many attempts to combat the erosion and storm problems. Some property owners have constructed individual bulkheads, but most are inadequate against storms of any consequence. The City of Norfolk has taken various nonstructural measures to alleviate storm damages in Willoughby-Ocean View. They include a flood insurance program, storm forecasting, and various flood plain regulations. These measures are worthwhile and will be continued. However, the potential for large property losses and safety hazards still exists.

WRIGHTSVILLE BEACH, N.C.

Location.—Wrightsville Beach is located in New Hanover County in the Southeastern section of North Carolina. Wilmington is the principal city in the county.

Authority for Report.—House Committee on Public Works Resolution adopted December 2, 1970.

Description of Recommended Plan.—The recommended plan provides for modification of the existing shore and hurricane wave protection project to extend the period of Federal participation in the periodic nourishment of the project from 10 years to the life of the project. It provides for average annual nourishment of 70,000 cubic yards per year along the authorized project at Wrightsville Beach.

Views of States and Non-Federal Interests.—The State of North Carolina, New Hanover County, and the Town of Wrightsville Beach support the project.

Views of Federal and Regional Agencies.—Resource management agencies have expressed concern over the effects of the project on the biota of the beach and the borrow area, but have agreed that these impacts should be minor.

Status of Final Environmental Impact Statement.—Due to minor impacts associated with the project, an environmental assessment was prepared in lieu of an EIS. The environmental assessment was furnished to EPA on August 18, 1982.

Project Costs.—

Federal: $260,000 (annual).

Non-Federal: $295,000 (annual).

Benefit/Cost Ratio.—1.79.

Remarks.—Continued erosion, without nourishment, will result in gradual and continual deterioration of the effectiveness of the existing project to a point where a significant threat to life and property will exist.

Pursuant to subsection (b) of section 401, a copy of any required environmental impact statement, together with any recommendations of the Secretary with regard to the project, will be transmitted to the House Committee on Public Works and Transportation and the Senate Committee on Environment and Public Works. No appropriations may be made for acquisition of lands for, or actual construction of, the project may be made until approved by resolutions of the two Committees. The Corps of Engineers is directed to continue to study the effects of the project on fish and wildlife habitat and the benthic environment, and incorporate such modifications as deemed appropriate by the Secretary to mitigate any adverse effects.

The beach erosion control/hurricane protection project for Wrightsville Beach was constructed in 1965. Authority for Federal participation in nourishment of the project expired in April 1981. The recommended plan would extend Federal participation in nourishment for the life of the authorized erosion control/hurricane protection project.

FOLLY BEACH, S.C.

Location.—Folly Beach is a seashore resort on Folly Island located about 10 miles south of Charleston, South Carolina.

Authority for Report.—Resolution adopted June 15, 1972, by the Committee on Public Works of the United States Senate.

Description of Recommended Plan.—The recommended plan is a structural plan for beach development in combination with nonstructural measures that have been established in the study area. It consists of providing a beach berm having a width of 25 feet and an elevation of four feet above mean sea level and a gradually sloping beach face to provide a combined recreational beach width of 61 feet at the time of nourishment. The beach would require periodic renourishment every five years.

Physical Data on Project Features.—

Structural

The selected plan provides for beach restoration and periodic nourishment for that 16,860-foot developed reach of Folly Beach in which manmade improvements are in greatest jeopardy. This reach would have a berm width of 25 feet. The berm would be constructed to an elevation of four feet above mean sea level and would be fronted by a beach having its face slope at about 30-horizontal to 1-vertical. The beach fill section would provide an average useable width above the mean high water line of 50 feet. The slope of the beach face would be formed by natural forces during and subsequent to material placement. Machines may be necessary to slope the berm depending upon the skill of the contractor in placing material.

Periodic renourishment would be required at approximately five-year intervals. Each of these efforts would require the borrowing of approximately 354,000 cubic yards from the same self-restoring sources. Materials dredged from shoals occurring in the Folly River small navigation project would be utilized when practical for initial construction and renourishment efforts. Material taken from Charleston Harbor entrance channel via hopper dredge may also be utilized if pumpout capability is developed sufficiently to make this operation economical.

Nonstructural

Project construction will result in the establishment of a property "hold line" which will separate public from private property.

Recreation

No specific recreational features are included. However, increased use of beach facilities will result from implementation.

Views of States and Non-Federal Interests.—The State has no objection to the recommended plan. The City of Folly Beach supports the project and expressed intent to provide the traditional items of local cooperation.

Views of Federal and Regional Agencies.—The Department of the Interior stated the position that the report is not an adequate biological assessment with regard to endangered species. The Chief replied that no endangered species would be affected in any way by the recommended project. EPA expressed concern that the project may induce additional beach front development. Most of the shoreline is already developed for residential purposes.

Status of Environmental Impact Statement (EIS).—Final EIS was filed with EPA on July 25, 1980.

Project Costs.—

Federal: $1,107,000.

Non-Federal: $2,038,000.

Benefit/Cost Ratio.—1.3

Remarks.—Implementation of the selected plan would produce several beneficial effects, including improved appearance of the beach, increased recreational dry beach area, and improved protection of shore structures against erosion.

Recent encroachment of the ocean has damaged or destroyed many beach front structures, especially along the northern two-thirds of the island. Overcrowded recreation conditions are already being experienced along many areas of the beach because of erosion. With public visitation of other nearby beaches being limited by inadequate parking and access areas, the amount of visitation at Folly Beach is expected to continue to grow.

PANAMA CITY BEACHES, FLA.

Location.—The 18.5 miles of coastline in Bay County, Florida, between the Panama City Harbor entrance channel and Philips Inlet.

Authority for Report.—Senate Public Works Committee Resolution dated April 21, 1970.

Description of Recommended Plan.—Provide a sandfill storm dune, stabilized by vegetation, and a protective beach along the Panama City beaches to provide protection from beach erosion and hurricane storm surge.

Physical Data on Project Features.—

Structural

The proposed plan consists of the placement of a protective beach to elevation 4, with a storm berm to elevation 7, together providing a 110-foot wide beach, with an artificial dune system having a top width of 30 feet at elevation 15, all for the 18.5 miles of the studied reach.

Nonstructural

The report suggests that beach access be restricted to protected access routes, that construction in exposed flood areas be regulated, and that a hurricane preparedness plan be provided. Such a plan was being prepared concurrently with the report by local interests.

The Florida Coastal Construction Setback Line has been implemented in Bay County since report submittal.

(1) Local interests are expected, as part of the local cooperation requirements, to provide appropriate access and facilities, including parking and sanitation, for realization of the public benefits upon which Federal participation is based.

(2) The proposed new beach would provide a daily carrying capacity of 214,700 visits, an increase of 48,100 visits over the existing beach capacity in 1976.

Environmental Features

The selected plan is aesthetically pleasing and provides both active and passive recreation opportunities. The project provides for protection of dune grasses, prevention of removal or relocation of sand fill from beach or dune, prohibiting dune traffic and providing designated beach access points.

Views of States and Non-Federal Interests.—The State of Florida expressed approval and support for the proposed project. No significant comments were received from other interests.

Views of Federal and Regional Agencies.—Comments were received from the Department of the Interior, Department of Transportation, Department of Health, Education and Welfare, and the Environmental Protection Agency. All comments were favorable with minor disagreement on a few technical points.

Status of Environmental Impact Statement (EIS).—The final EIS was filed with EPA on February 12, 1979.

Project Costs.—

Federal: $26,220,000.

Non-Federal: $12,678,000.

Benefit/Cost Ratio.—2.8.

ST. JOHNS COUNTY, FLA.

Location.—St. Johns County's 41.3 miles of Atlantic shoreline lies on the upper Florida east coast within 50 miles of Jacksonville, Florida, to the north. St. Augustine, Florida, is located in the study area.

Authority for Report.—Senate Public Works Committee Resolution adopted June 22, 1973.

Description of Recommended Plan.—The recommended plan provides for restoration of 2.5 miles of beach fronting the oceanshore of the City of St. Augustine, Florida, and subsequent periodic nourishment of the restored beach.

Physical Data on Project Features.—

Structural

Provides for initial beach fill of 1,800,000 cubic yards of material along 2.5 miles of oceanshore fronting the City of St. Augustine, Florida.

Nonstructural

Construction set back line established by State.

Recreation

The restored beach would accommodate about 30,000 beach visitors per day.

Views of State and Non-Federal Interests.—The State of Florida and St. Johns County endorse the recommended plan. The State Department of Environmental Regulation supported the project but requested that preconstruction planning and engineering studies address its concerns regarding impacts from turbidity, siltation and/or oxygen depletion and release of toxic gases.

Views of Federal and Regional Agencies.—The Department of the Interior is concerned about the need to protect sea turtle eggs and nesting. EPA shares these concerns.

Status of Final Environmental Impact Statement.—Filed with EPA June 26, 1981.

Project Costs.—

Federal: $7,660,000.

Non-Federal: $1,380,000.

Benefit/Cost Ratio.—1.1.

Remarks.—The Committee has included a provision in the authorizing language directing the Secretary, to the maximum extent feasible, to construct the project so as to avoid adverse effects on sea turtle nestings.

CHARLOTTE COUNTY, FLA.

Location.—Charlotte County is on the lower Gulf Coast of Florida about 75 miles south of Tampa, Florida. The 14 miles of study shoreline are located on barrier islands fronting the Gulf of Mexico.

Authority for Report.—House Committee on Public Works Resolution of December 3, 1971.

Description of Recommended Plan.—The erosion control plan would provide a beachfill and periodic nourishment along the Port Charlotte Beach State Recreation Area, 1.1 miles long, and periodic nourishment.

Physical Data on Project Features.—The beach would be raised to elevation 5 feet above mean low water with a level berm 30 feet wide. An upper berm 20 feet wide at elevation 9 feet above mean low water would be constructed landward of the level berm. The beachfill would require about 105,000 cubic yards, with annual nourishment estimated at 11,000 cubic yards.

A 1,250-foot-long terminal groin would be constructed at the south end of the beachfill.

Views of State and Non-Federal Agencies.—The State of Florida agreed to provide the traditional items of local cooperation for the project.

Views of Federal and Regional Agencies.—No Federal agency opposes the project, but concerns were expressed regarding effects of borrow areas and reefs.

Status of Final Environmental Impact Statement.—Final EIS filed with EPA on September 4, 1981.

Project Costs.—

Federal: $1,440,000.

Non-Federal: $630,000.

Benefit Cost Ratio.—4.0.

Remarks.—The Committee has included in the authorizing language the provision that the Secretary shall construct the project so as to minimize the harm to marine borrow areas and reefs, to the maximum extent feasible.

INDIAN RIVER COUNTY, FLA.

Location.—Indian River County is on the central east coast of Florida about midway between Jacksonville and Miami.

Authority for Report.—Section 304, Public Law 89-298, October 27, 1965.

Description of Recommended Plan.—The recommended plan provides for beach restoration with periodic nourishment along 1.7 miles of shore fronting the City of Vero Beach and for initial beach fill and periodic nourishment of 1.7 miles of ocean shore fronting Sebastian Inlet State Park.

Physical Data.—

Structural

Initial beach fill of 202,000 cubic yards along the shores of Sebastian Inlet State Park and 572,000 cubic yards of material along the shore fronting Vero Beach.

Nonstructural

Construction set back line established by State.

Recreation

The project for Sebastian Inlet State Park provides a beach that will accommodate about 11,000 visitors per day. Similarly the project beach for Vero Beach will accommodate about 10,000 visitors.

Views of States and Non-Federal Interests.—The State endorses the plan with reservations concerning endangered sea turtles and adjustments in traditional cost sharing for the Sebastian Inlet State Park segment. The Chief replied that weather conditions suitable for nourishing the beach coincide with the nesting season and that daily inspections would be made of the entire beach work area at daybreak for the location, taking, incubation of turtle eggs, and release of hatchlings by personnel permitted by the State of Florida. The adjustments in cost sharing will be reexamined during preconstruction studies when the effectiveness of the State's sand trap operation is determined.

The Board of County Commissioners agreed to local sponsorship. The State indicated its strong support and sponsorship for Sebastian Inlet State Park.

Views of Federal and Regional Agencies.—Interior, EPA, and Commerce have no objections.

Status of Final Environmental Impact Statement.—Filed with EPA June 2, 1981.

Project Costs:

Federal: $2,300,000.

Non-Federal: $2,330,000.

Benefit/Cost Ratio.—2.0.

Remarks.—The Committee has added a provision in the authorizing language specifying that the Federal share shall be 70 percent for the Sebastian Inlet State Park segment. This is in accord with existing law which states that the Federal share for shore protection projects shall be 70 percent where the shore fronts a public park. Also, the Committee has included the provision that the Secretary shall construct the project so as to avoid, to the maximum extent feasible, adverse effects on sea turtle nesting.

DADE COUNTY, FLA.

Location.—Dade County is located on the southeast tip of the Florida Peninsula. Miami is the principal city in the county.

Authority for Report.—House Committee on Public Works and Transportation Resolution adopted September 3, 1976.

Description of Recommended Plan.—The recommended plan provides for modifications of the existing Dade County Beach Erosion Control and Hurricane Protection Project to provide for extension of the protective beach 2.5 miles north of Haulover Beach Park, for periodic nourishment of this reach of new beach and for extension of the period for Federal participation in the nourishment of the existing project from 10 years to the life of the project.

Physical Data.—

Structural

Initial fill of 1,253,000 cubic yards along 2.5 miles of ocean shore north of Haulover Beach Park.

Nonstructural

Construction setback line established by the State.

Views of State and Non-Federal Interests.—The State of Florida supports the project but has concerns about the potential damage to the marine environment in the borrow areas. The Board of County Commissioners endorsed the project by resolution.

Views of Federal and Regional Agencies.—Comments from the Fish and Wildlife Service and Environmental Protection Agency expressed concern over the effect of the dredging on marine environment in the vicinity of the offshore borrow area.

Status of Final Environmental Impact Statement.—The EIS concerning the Dade County Project was filed with the Council on Environmental Quality in August 1976. A supplement for the EIS which concerns the recommended modification to the existing project was filed with EPA on March 18, 1983.

Project Costs.—

Federal: $3,990,000.

Non-Federal: $4,312,000.

Benefit/Cost Ratio.—3.1.

Remarks.—The project involves potential adverse effects to coral in the borrow area—the area from which sand for the beach is proposed to be taken. The Committee has therefore added a provision to the authorizing language directing the Secretary, to the maximum extent feasible, to construct the project so as to minimize adverse effects on coral reefs.

MONROE COUNTY, FLA.

Location.—Monroe County lies on the southwestern tip of the Florida peninsula about 40 miles southwest of Miami, Florida. The primary study area is located at Key West in Monroe County.

Authority for Report.—Resolution adopted by Committee on Public Works and Transportation of the House of Representatives on October 12, 1972.

Description of Recommended Plan.—Elements of the plan include construciton of a beach berm through placement of fill along 9,400 feet of the southern shore of Key West, construction of two rubble mound groins, periodic nourishment for 50 years, relocation of an existing boat ramp, and restoration of nearshore depression areas through filling with material removed during site preparation and transplanting of seagrass.

Physical Data on Project Features.—Structural:

Construction of a level beach berm at an elevation of 4 feet above mean low water with a width of 100 feet along the 3,000 feet of previously renourished Smathers Beach area and a width of 25 feet along the 3,000 feet of shoreline immediately east of Smathers Beach and the 3,400 feet of shoreline immediately west of Smathers Beach.

Periodic nourishment of the beach fill to replace sand lost to erosion. This renourishment would be accomplished approximately every 5 years, or as needed, for a period of 50 years following construction.

Construction of two rubble mound groins, one at each end of the beach fill, to stabilize the design section.

Site preparation prior to beach fill along 6,400 feet of shoreline involving the removal of about 27,000 cubic yards of material.

Nonstructural:

The implementation of nonstructional measures of rezoning, modification of existing building codes, and establishment of a construction setback line by local interests.

Recreation

Relocation of the existing boat ramp from the Smathers Beach area to the White Street pier area.

Environmental Features

Filling of several nearshore depressions with material obtained from the site preparation and beach fill.

Transplanting of about 10 acres of seagrass from those areas to be covered with beach fill to the filled depression areas.

Views of State and Non-Federal Interests.—The State of Florida generally supports the selected plan for beach erosion control. It has expressed concern over the adverse environmental impact associated with the loss of 23 acres of seagrass community.

Views of Federal and Regional Agencies.—The National Marine Fisheries Service, the Fish and Wildlife Service of the Department of the Interior, and the U.S. Environmental Protection Agency object to the loss of seagrass community in the Key West area. These agencies prefer either a smaller project area (i.e., restoration of Smathers Beach only) or no action.

Status of Environmental Impact Statement.—The Final Environmental Impact statement was filed with EPA on October 28, 1983.

Project Costs.—

Federal: $1,650,000.

Non-Federal: $1,650,000.

Benefit/Cost Ratio.—1.9.

Remarks.—The Committee has included language directing the Secretary, in consultation with appropriate Federal, State and local agencies, to study the effects that construction, operation and maintenance of the project may have on the seagrass community in the area. Not later than one year after the date of enactment, the Secretary shall transmit a report on the results of the study, together with any recommendations of the Secretary for modifications to the project determined necessary and appropriate to minimize adverse effects on the seagrass community, to the House Committee on Public Works and Transportation and the Senate Committee on Environment and Public Works. The Secretary must also transmit a copy of any required environmental impact statement pursuant to subsection (b) of section 401. Except for funds from the Environmental Protection and Mitigation Fund, no appropriations may be made for acquisition of lands for, or actual construction of, the project until approved by resolutions of the two Committees.

PRESQUE ISLE PENINSULA, ERIE, PA.

Location.—Presque Isle Peninsula is located at Erie, Pennsylvania, on the south shore of Lake Erie, 78 miles southwest of Buffalo, New York and 102 miles northeast of Cleveland, Ohio. According to the 1980 U.S. Census data, the City of Erie has a population of 119,123.

Authority for Report.—Section 101(a) of the Water Resources Development Act of 1976 (P.L. 94-587).

Description of Recommended Plan.—The recommended plan of improvement provides for construction of a system of rubblemound breakwaters located offshore along the lakeward length of Presque Isle Peninsula, parallel to the shoreline, and positioned in the trough between the first and second offshore sand bars. Each structure will be 150 feet long with a 350-foot gap between structures. In addition, sand fill will be placed along the shoreline in the lee of the breakwaters to provide a recreational beach berm.

Physical Data on Project Features.—

Structural

The project features consist of offshore breakwaters and beach replenishment. The beach replenishment would provide a beach berm with a minimum 60-foot width and crest evaluation of 10.0 feet above low water datum along approximately 6.0 miles of lake frontage and would be protected by an estimated 58 rubblemound offshore breakwater segments. The breakwaters and beach berm will restore the eroded beaches and provide permanent protection to the peninsula and its recreational facilities. The project features will assure permanent protection to the peninsula and park facilities provided that an annual replenishment requirement estimated at 38,000 cubic yards of sandfill is implemented.

Views of the State.—During the project planning stages, State government agencies, the Pennsylvania Fish Commission and the Department of Environmental Resource expressed views favoring the segmented breakwater plan. The Pennsylvania Fish Commission feels that the breakwaters would be beneficial toward improving the fish habitat of an area that is now relatively unproductive as a fishery area.

Views of Federal and Regional Agencies.—The U.S. Department of the Interior, Bureau of Land Management, stated that it has no comments to offer on the study since it has no surface or subsurface mineral ownership responsibilities on or near Presque Isle Peninsula. The United States Coast Guard stated that it has no comments or objections to offer on the project. The U.S. Department of the Interior, Fish and Wildlife Service, stated that it has no problem with the selected plan. The National Oceanic and Atmospheric Administration suggested construction of a few prototype structures to check the design data and recommended model tests be conducted to develop breakwaters of lesser height. The U.S. Environmental Protection Agency, Region III, stated that it has no objections to the project as presented in the report and classified the project in EPA's reporting category LO–1.

Status of Final Environmental Impact Statement (EIS).—The Final EIS was filed with the Environmental Protection Agency on March 13, 1981.

Project Costs.—

Federal: $18,550,000.

Non-Federal: $7,950,000.

Remarks.—In 1956, the Federal Government, in cooperation with the Commonwealth of Pennsylvania, completed a beach erosion control project on Presque Isle Peninsula. Since that time, the project has proven to be inadequate and sand replenishment measures have been required periodically through the 1960's and 1970's and annually since 1975, in order to protect the Federal structures and State park facilities along the neck of the peninsula. Since the actual sand replenishment requirements have far exceeded the estimated requirements, a more effective method of protection and beach stabilization is needed. The park is a popular recreational area and provides facilities for a wide spectrum of recreational opportunities. The year-round attractiveness of the park is shown by the over 4 million persons who visit the park annually.

The system of offshore breakwaters allows sufficient wave energy to pass through the gap between breakwater segments to generate an alongshore current in the lee of the breakwater system. Therefore, natural shore processes will continue to transport sand in quantities which will preserve the integrity of the natural environment, especially the sensitive and unique portion of the Ecological Reservation on the east end of the peninsula. An important element of the recommended plan will be the operation of a post-construction monitoring program which would note the presence of any adverse sediment transport impacts. Should adverse impacts arise, the annual replenishment program would be adjusted to provide sand in order to eliminate, minimize, or ameliorate possible adverse environmental impacts.

INDIANA SHORELINE, IND.

Location.—The study area lies along the southern tip of Lake Michigan between Michigan City Harbor, Indiana, and the Illinois-Indiana State line.

The entire shoreline from Michigan City Harbor to the Illinois-Indiana State line was investigated in this study. The most serious shore erosion problem occurs at the extreme eastern end of the study area in the four mile reach immediately downdrift of Michigan City Harbor. Although erosion occurs along the remaining unprotected shorelands located westward to the Illinois-Indiana State line, the preliminary feasibility report concluded that the problems along this reach are either not significant enough to warrant the Corps of Engineers' assistance or the solutions to correct the problems are not economically justified at this time. therefore, the report concentrates on the erosion problems immediately downdrift of Michigan City Harbor to the east boundary of the Indiana Dunes State Park. The shorelands along this entire reach are included in the Indiana Dunes National Lakeshore which is owned by the National Park Service.

Authority for Report.—This report has been prepared in response to two resolutions by the Committees on Public Works of the United States House of Representatives adopted on December 2, 1970, and April 11, 1974, respectively, and to Section 111 of the 1968 River and Harbor Act.

Description of Recommended Plan.—The recommended plan consists of construction of a beach berm along the shore from the Northern Indiana Power Company (NIPSCO) property west to the eastern end of the existing Beverly Shores revetment. An initial 400,000 cubic yards of beach fill material would be obtained from a land borrow source trucked to the construction site, and distributed by bulldozers and scrapers. Periodic nourishment of 400,000 cubic yards at approximately six year intervals would be required to maintain a berm. Littoral drift from the beach berm is expected to move downdrift and maintain a limited beach lakeward of the eastern portion of the existing Beverly Shores revetment. A monitoring program would be undertaken in connection with the initial beach nourishment to monitor the movement of the beach fill and its impacts.

Physical Data on Project Features.—The top of the beach berm would be at an elevation of +9 feet above low water datum (LWD). Berm widths vary from 30 feet at the downdrift or west end to 110 feet near the NIPSCO property. The beach slope will be ultimately determined by the local wave climate and grain size distribution of the sand used to build the beach berm. However, it is anticipated that beach slopes of approximately 1 on 12 will develop above low water datum (LWD) and 1 on 40 below LWD.

Views of States and Non-Federal Interests.—The State of Indiana Department of Natural Resources provided a letter dated July 28, 1978, indicating that the State would endorse the proposed beach nourishment plan subject to three conditions. These conditions related to use of land borrow source for the beach nourishment materials, implementation of suitable satisfactory monitoring programs, and execution of a license agreement with the State relative to the use of the bed of Lake Michigan for project purposes. The District Engineer has recommended use of a land borrow source and implementation of a five-year monitoring program. The District Engineer also proposes to enter into a written agreement with the State regarding use of the Lake Michigan bottomlands.

The town of Beverly Shores, Indiana, reviewed the past erosion problems along its lakefront and expressed its support of the recommended plan. The Save the Dunes Council indicated that it continued to support implementation of an alternative which would provide for full shore protection, as the most cost effective and resource-protective solution to the erosion problem in the study reach.

Views of Federal and Regional Agencies.—During plan development, the Superintendent of the Indiana Dunes National Lakeshore emphasized continued support for the proposed beach nourishment program. Close coordination was maintained with the National Park Service in developing the plan recommended in this report.

The Fish and Wildlife Service indicated that it did not oppose the project and offered recommendations to help accomplish the project with minimal adverse biological impacts.

The United States Coast Guard indicated that it had no comments or objections to offer. The U.S. Environmental Protection Agency indicated that the draft EIS adequately assessed the environmental impacts of the preferred plan and its alternatives.

Status of Environmental Impact Statement.—The final environmental impact statement was filed with EPA on March 15, 1983.

Project Costs.—

Federal: $7,390,000.

Non-Federal: $0.

Note: Because the recommended plan provides for the mitigation of the erosion damages caused by the Federal harbor structures at Michigan City Harbor under the authority of Section III of the 1968 River and Harbor Act, there is no cost sharing with local or state agencies. Erosion caused by natural forces would continue. The costs of mitigating shoreline erosion caused by Federal navigation projects have historically been 100 percent Federal.

Benefit/Cost Ratio.—1.04.

Remarks.—Storms, high winds and the waves they generate are the major causes of erosion damage in the study area. Fluctuations in lake levels also have an impact on the severity of erosion caused by wave action. During periods of high lake levels, storm waves directly attack the dunes that under normal or low water conditions are often located well back from the water's edge. The Michigan City Harbor structures have altered the littoral processes in the study area by intercepting the littoral drift and depriving the beaches immediately westward or downdrift of the harbor of needed beach building materials for a distance of about four miles. The harbor structrues are responsible for about 60 percent of the erosion problem in this 4-mile reach. The remaining 40 percent is due to natural forces which cause a continuous, long-term rate of dune recession on the order of 2 to 4 feet per year.

The shore property affected by the interruption of the littoral drift is located entirely within the Indiana Dunes National Lakeshore owned by the National Park Service. The area within the National Lakeshore most significantly affected is Mt. Baldy. The adjacent Black Oaks dune area is also seriously affected. Mt. Baldy, a massive 125-foot-high sand dune, is the most significant feature and visitor attraction for short-term use in the National Lakeshore. The area is used for swimming, sunbathing, picnicking, hiking/walking, hand gliding, and environmental education. Winter activities include cross-country skiing, tubing, and tobogganing. The National Park Service estimates that after completion of its development of facilities in 1985, annual visitation to Mt. Baldy will reach 850,000 persons by 1990.

Implementation of the recommended plan would mitigate the erosion damages attributable to the Michigan City Harbor structures. The shore processes at the eastern end of the National Lakeshore would be restored to a more natural state. The natural or background erosion would continue to occur. The future rate of erosion of Mt. Baldy and the adjacent Black Oaks dunes would be reduced by 60 percent. This would save approximately 55 acres of dune erosion in the East Unit of the National Lakeshore over the next 50 years. The mitigation would be consistent with the intent of the 1966 authorization of the Indiana Dunes National Lakeshore to preserve portions of the Indiana Dunes for the eductional, inspirational, and recreational use of the public. It would also be consistent with the shoreland management policy of the National Lakeshore which is to allow natural erosion to occur but to mitigate damages attributable to man-made structures and processes. The physical life of Mt. Baldy would be substantially extended, preserving its environemtnal, intrinsic, and recreational values for a much longer period of time.

MAUMEE BAY, LAKE ERIE, OHIO

Location.—Maumee Bay State Park is located on the south shore of Lake Erie, near Toledo, Ohio.

Authority for Report.—Committee on Public Works and Transportation, House of Representatives, Resolution dated April 11, 1974.

Description of Recommended Plan.—A 5,500-foot-long protective sand beach over the western half of the park shoreline.

A 6,200-foot-long rubblemound revetment along the eastern half of the park.

A 250-foot-long jetty at the western end of the beach.

Eight offshore rubblemound breakwaters.

Fifty feet of turf on the landward side of the beach.

Views of States and Non-Federal Interests.—The State of Ohio has indicated intent to provide items of local cooperation.

Views of Federal and Regional Agencies.—The U.S. Fish and Wildlife Service has expressed concern about water quality behind the proposed wildlife revetment, fish passage to marsh areas, and the utilization of offshore sand resources. These matters will be studied further during future engineering and design studies.

Project Costs.—

Federal: $7,390,000.

Non-Federal: $3,632,000.

Benefit/Cost Ratio.—1.7.

Remarks.—Pursuant to subsection (b) of section 401, the Secretary is to transmit a copy of any required final environmental impact statement, together with any recommendations of the Secretary with respect to the project, to the House Committee on Public Works and Transportation and the Senate Committee on Environment and Public Works within one year from the date of enactment. Except for funds from the Environmental Protection and Mitigation Fund, no appropriations may be made for acquisition of land for, or actual construction of, the project until approved by resolutions of the two Committees.

The Secretary is expected to study further the effects of the project on fish and wildlife, and to include recommendations as to measures deemed necessary and feasible to minimize any such effects when the final environmental impact statement is transmitted to the Committees.

The Secretary is authorized to contract with the State of Ohio on the items of local cooperation for the project, notwithstanding that the State may elect to make its performance contingent upon the State legislature making the necessary appropriations. This provision is included in light of the Ohio constitution's prohibition against the binding of future legislatures. This is consistent with Section 1167 of this bill, which amends Section 221 of the Flood Control Act of 1970 in this regard.

Subsection (b) of Section 401 provides that, in the case of any project authorized in subsection (a) for which a final report of the Chief of Engineers has not been completed before enactment, the Secretary shall transmit a copy of any required final environmental impact statement, together with any recommendations of the Secretary with respect to the project, to the House Committee on Public Works and Transportation and the Senate Committee on Environment and Public Works within one year of the date of enactment of the Act. Except for funds from the Environmental Protection and Mitigation Fund, no funds may be appropriated for acquisition of land for, or actual construction of, the project until approved by resolutions of the two Committees.

Subsection (c) of Section 401 authorizes and directs the Secretary to design and construct an erosion control structure on the western shore of Tangier Island, Virginia, adequate to protect the island from further erosion, at an estimated cost of $3,500,000. This project, which is at full Federal expense in view of the national, cultural and historic value of the island and the need to protect the Federal investment in public facilities, is to be carried out on an emergency basis.

Tangier Island, Virginia, is located in the Chesapeake Bay just south of the Virginia-Maryland State line. The island, which has been inhabited since early colonial times, is historically important and culturally unique. Its economy is primarily water-related. Because of centuries of isolation, much of the colonial culture remains, including the hint of an Elizabethan dialect. In February 1978, the Virginia General Assembly designated Tangier a unique, historic area.

The western shore of the island is experiencing such a high rate of erosion, that within the coming decade the airport runway, a critical link with the outside world, will become inoperable. If erosion, which is progressing at the rate of over 25 feet per year, is allowed to continue, the island will probably have to be evacuated. The assimilation of its roughly 800 inhabitants into other communities would be an irretrievable and unquantifiable cultural loss. In addition, such a move could have serious adverse social impacts on the inhabitants.

In May 1975 and again in November 1978, the Secretary of Commerce and Resources of the Commonwealth of Virginia, convened intra-agency task forces to study the problems. These task forces were composed of representatives from Virginia Institute of Marine Science; Virginia Soil and Water Conservation Commission; Norfolk District, Corps of Engineers; Soil Conservation Service; Virginia Division of Aeronautics; Virginia State Water Control Board; Virginia Department of Housing and Community Development; Virginia Marine Resources Commission; Virginia Department of Highways; Department of Intergovernmental Affairs (formerly the Virginia Division of State Planning and Community Affairs); and the Town of Tangier. After investigating an array of alternative solutions, the task force recommended construction of a detached riprap seawall along 8,200 feet of Tangier's western shoreline. It is this measure which is authorized by Section 401.

Subsection (d) of Section 401 authorizes a project for shore protection and beach erosion control at Monmouth Beach and Sea Bright, New Jersey. The project includes repair and restoration of the existing seawall, placement of sand and periodic beach nourishment, construction of new groins, repair of existing groins, and constuction of parking facilities. Construction of all of these features and periodic nourishment is a Federal responsibility. Prior to initiation of construction of the project, non-Federal interests must agree to provide public access to the beach in accordance with all requirements of State law.

Rebuilding of the seawall and beach restoration at Monmouth Beach and Sea Bright have been under consideration for 25 years, but concern over the extent of the plan and the lack of local funding have prevented action. Over a period of 30 years, the beach has been eaten away, leaving the seawall exposed to the ocean even at low tide. The six-mile-long seawall protects Monmouth Beach and Sea Bright, along with Route 36, their only access road, from the ocean. With the deteriorated condition of the seawall, any ocean storm threatens the road and residents of the houses located on the other side.

Subsection (e) of Section 401 makes inapplicable any provision in any of the reports designated in Title IV which recommend that a State contribute in cash 5 percent of the construction costs allocated to non-vendible project purposes and 10 percent of the costs allocated to vendible project purposes. Such contributions were included in Corps of Engineers reports on water resources projects during the preceding administration. The Committee has adopted new cost-sharing policies for some types of projects, and reaffirmed existing policies for others. The recommendations for 5 and 10 percent contributions have not been adopted.

SECTION 402

This section directs the Secretary to undertake demonstration projects for shoreline erosion control at six locations in the State of New Jersey–Fort Elsinboro, Sea Breeze, Gandys Beach, Reeds Beach, Pierces Point, and Fortescue. These demonstration projects are to be carried out in cooperation with Federal, State and local agencies, and private organizations.

These beaches have suffered serious erosion problems typical of many beaches in the mid and northeastern sections of the United States. The information gained from devising effective, low-cost means of protecting these beaches, is expected to be widely applicable.

The demonstration projects may be carried out on private or public lands, except that privately owned lands shall not be acquired under authority of Section 402.

In the case of sites located on private or non-Federal public lands, the demonstration projects shall be undertaken in cooperation with appropriate non-Federal interests who shall pay 25 percent of the construction costs and assume operation and maintenance costs upon completion of the project.

The Secretary is directed to prepare and submit to Congress a report on each site during the fiscal year following completion of construction at that site. The report is to include an analysis of the technique or techniques used and an evaluation of their functioning to that point.

Not to exceed $12,500,000 is authorized to be appropriated to carry out this section.

TITLE V

WATER RESOURCES CONSERVATION AND DEVELOPMENT

Title V authorizes 55 projects for water resources conservation and development, including mitigation of damages to fish and wildlife, water supply, hydroelectric power, streambank erosion control, navigation, and other purposes. Descriptions of the projects follow.

SECTION 501

This section authorizes the following projects:

NEPONSET RIVER, MILTON TOWN LANDING TO PORT NORFOLK, MASS.

The project area includes the Neponset River in the municipalities of Boston, Quincy, and Milton, Massachusetts.

The proposed navigation project for deepening and improving the Neponset River consists of dredging a channel 100 feet wide commencing at the mouth of the Neponset River in the vicinity of the Port Norfolk Yacht Club and extending upstream to the Milton Town landing. Channel depths will be 10 feet deep below mean low water at Port Norfolk Yacht Club upstream to the Granite Avenue Bridge; tapering from 10 feet to 6 feet below mean low water over a distance of 1,050 linear feet upstream of the Granite Avenue Bridge; and continuing at a depth of 6 feet to the Milton Town Landing.

The authorization in Section 501 will enable the Secretary to plan, design and construct a project for improvement of navigation in the Neponset River, subject to applicable requirements of Federal and non-Federal cost-sharing. The estimated total cost of the project is $3,000,000.

BIG RIVER RESERVOIR, R.I.

Location.—The study area is in central Rhode Island and consists of 17 communities, including Providence and most of the Providence metropolitan area.

Authority for Report.—House Public Works Committee resolution adopted July 10, 1968, Senate Public Works Committee resolutions adopted March 29, 1968, and February 2, 1970.

Description of Recommended Plan.—The overall recommended plan consists of a multiple purpose reservoir providing flood control, water supply and recreation at the Big River site, development of local groundwater in certain areas as water supply sources, and a water conservation program for the entire metropolitan area. Only a portion of the overall plan would be eligible for Federal implementation. The proposed project for Federal implementation consists of the Big River dam and reservoir project, excluding treatment facilities and the finished-water aqueduct and any other elements not within Corps of Engineers implementation authority.

Physical Data on Project Features.—

Structural

(a) Dam—70 feet high, 2,240 feet long; reservoir—approximately 3,400 acres surface area at maximum flood control pool; and a 90-inch diameter, 3,200-foot-long aqueduct.

(b) Lands (State-owned)—approximately 8,300 acres total. Several primary and secondary roads to be relocated.

Nonstructural

Downstream communities would continue to implement National Flood Insurance Program.

Recreation

(a) Facilities for boating, camping, fishing, hiking, horseback riding, hunting, picnicking and swimming. The project includes boat ramps, beaches, parking lots, trails, sanitary facilities, picnic areas, game fields, and campsites.

(b) The project meets recreational needs of the study area throughout the study timeframe.

Water Use and Control

(a) Water Supply—73,600 acre-feet of usable storage provides 36 million gallons per day safe yield. Multi-level water intake provides high degree of control over raw water quality.

(b) Flood Control—9,500 acre-feet of storage equivalent to 6 inches of runoff from watershed above dam. Conservation storage of 12,300 acre-feet.

Environmental Features

Mitigation on project lands—several subimpoundment areas are proposed to create wetlands and waterfowl habitat. Management of wildlife habitat will be undertaken to increase carrying capacity and quality of habitat. Cultural resources mitigation includes possible relocation of structures, and architectural and archaeological recording measures.

Views of States and Non-Federal Interests.—The State of Rhode Island supports construction of the Big River Reservoir project. The State's Department of Environmental Management recommends the acquisition of 2,000 additional acres for mitigation.

Views of Federal and Regional Agencies.—The U.S. Department of the Interior expressed concerns regarding the need for and impacts associated with the Big River Reservoir project. The U.S. Environmental Protection Agency expressed similar concerns. The Fish and Wildlife Service does not support construction of the project, but recommends the acquisition of an additional 5,800 acres of mitigation lands if the project is built. The U.S. Environmental Protection Agency notes that the project, because of its destruction of wetlands, does not comply with the guidelines promulgated pursuant to Section 404(b) of the Federal Water Pollution Control Act (discharge of dredged or fill material). It also is concerned about mercury levels in the watershed and possible pollution of the reservoir from a highway which will cross it.

Status of Final Environmental Impact Statement (EIS).—Final EIS filed May 10, 1982.

Project Costs.—

Federal: $40,900,000 ($33,300,000 of which will be repaid by the non-Federal sponsor pursuant to the Water Supply Act of 1958).

Non-Federal: $37,700,000 in State-owned lands (plus above $33,300,000).

Benefit/Cost Ratio.—1.17.

Remarks.—The Committee has added a provision to the authorizing language directing the Secretary, in consultation with appropriate Federal, State and local agencies, to reevaluate the acquisition of mitigation lands recommended in the report of the Chief of Engineers for purposes of determining the need for additional lands for mitigation of fish and wildlife losses. The report on this reevaluation is to be submitted within one year to the House Committee on Public Works and Transportation and the Senate Committee on Environment and Public Works. Except for funds from the Environmental Protection and Mitigation Fund, no appropriation may be made for acquisition of land for, or actual construction of, the project until approved by resolutions of the two Committees. The project authorization includes any additional lands recommended by the Secretary.

OLCOTT HARBOR, N.Y.

Location.—Olcott Harbor is located on the south shore of Lake Ontario, at the mouth of Eighteenmile Creek, approximately 35 miles northeast of the City of Buffalo, New York. The population of the affected Buffalo Standard Metropolitan Statistical Area is approximately 1.3 million.

Authority for Report.—House Public Works Committee resolution adopted on October 19, 1967.

Description of Recommended Plan.—The recommended plan consists of construction of breakwaters, channel dredging, a stone jetty, and recreation fishing facilities including a foot bridge, walkways and guard rails, access facilities, sanitary facilities and parking areas.

Physical Data on Project Features.—

Structural

(a) A west detached breakwater and an east breakwater connected to shore by a 150-foot-long pedestrian bridge in Lake Ontario, the westerly breakwater 1,110 feet long and the easterly breakwater 1,650 feet long;

(b) A jetty alongside the west side of the U.S. West Pier for a distance of 330 feet lakeward of the shore;

(c) Dredging an irregular shaped entrance channel, where necessary, between the breakwaters, 12 feet deep and minimum width of 100 feet;

(d) Dredging an access channel 9 feet deep, 100 feet wide and parallel to the long leg of the east breakwater for a distance of 1,040 feet southeasterly from the entrance channel;

(e) Dredging a channel in Eighteenmile Creek nine feet deep and generally 100 feet wide, with an 80-foot section in the constricted reach downstream from Main Street, channel to extend from upstream limit of the present project channel to the Route 18 bridge, a distance of about 1,500 feet; and

(f) Dredging a turning basin at the upstream end of the 9-foot creek channel and downstream of the Route 18 bridge, also 9 feet deep and 150 feet square.

All of the above features are required to provide an all-weather entrance channel and 800 additional berthing spaces for recreational craft. The east breakwater is also required for fishing access.

(g) Lands required for disposal of dredged material, pipeline easements, appurtenances, and pipeline crossing Route 18.

Recreation.—Recreation fishing facilities on the east breakwater including a foot bridge, walkways and guard rails on the east breakwater, access facilities, sanitary facilities and parking areas. These features are required for fishing from the east breakwater. The facilities would provide 20,560 fisherman-user days annually.

Views of States and Non-Federal Interests.—The New York State Parks and Recreation Department (NYSP&R) is in favor of the general plan of improvements and indicated its willingness to provide the necessary items of local cooperation. The New York State Department of Environmental Conservation (NYSDEC) indicated it favors opportunities for fishing access, but requested a model study to evaluate possible adverse impacts (thermal pollution, trapping sediments, alteration of stream flow and water quality). This will be done in post-authorization studies.

Views of Federal and Regional Agencies.—The United States Coast Guard furnished views and costs on necessary aids to navigation. The Department of Health, Education, and Welfare; the Bureau of Outdoor Recreation; the Fish and Wildlife Service, the Geological Survey; The Federal Highway Administration; and the

U.S. Environmental Protection Agency all approved the report with some minor comments. The National Park Service recommended a survey of cultural resources of the area prior to construction. The cultural resources survey was completed and the recommended plan would have no effect upon cultural resources. The U.S. Fish and Wildlife Service had concerns with adverse impacts similar to those of the NYSDEC. A model study will be performed in postauthorization studies.

Status of Final Environmental Impact Statement.—Final EIS was filed with EPA on September 24, 1979.

Project Costs.—

Federal: $5,780,000.

Non-Federal: $5,830,000.

Description of Non-Federal Implementation Costs.—The State of New York would be required to pay costs for a share of the recreational navigation and fishing features and all of the funds required for disposal of dredged material, pipeline easements, appurtenances, and pipeline crossing.

Benefit/Cost Ratio.—1.3.

Remarks.—There is a growing need for more berthing space along the entire lake, and Olcott Harbor can be enlarged to meet part of that need. In addition, the existing harbor is subject to heavy wave action from northerly storms, and new protective structures are required. These new structures will also provide an opportunity for more people to have access to the lake shore so they can enjoy fishing.

The Secretary, in consultation with appropriate Federal, State and local agencies, is directed to conduct additional studies of the effects of the project on fish and wildlife resources. The studies are to include the development and testing of a physical model of the proposed plan. The Secretary is authorized to undertake any additional measures which he determines necessary and appropriate to minimize any adverse effects of the project on fish and wildlife production and habitat.

HAMPTON ROADS DEBRIS REMOVAL, VIRGINIA

Location.—Hampton Roads including the Harbors of Norfolk and Newport News, Virginia.

Authority for Report.—Resolution adopted by the House Committee on Public Works on April 14, 1964.

Description of Recommended Plan.—The proposed plan of improvement recommends modifying the existing Federal drift removal program by initiating an operation that would include: (1) clearing Hampton Roads of the existing floating drift which is hazardous to navigation; (2) removing sources of debris consisting of dilapidated waterfront structures, dilapidated portions of partially deteriorated structures, sunken and abandoned wooden vessels, loose onshore floatable debris, and nonfloatable materials that are a part of certain dilapidated structures and confined in hulls of sunken vessels; (3) landfilling the drift and debris in an existing Federal disposal facility at Craney Island; and (4) preventing the creation of future sources of waterfront drift and debris.

Physical Data on Project Features.—The project requires the removal and disposal of approximately 1,296,100 cubic feet of debris material as summarized below:

Type material to be removed:	*Cubic feet*
Piling	669,600
Superstructure	81,300
Wooden vessels	430,200
Shoreline debris	115,000
Total	1,296,100

Views of States and Non-Federal Agencies.—The Commonwealth of Virginia's Council on the Environment (January 19, 1982), coordinated the State's review of the draft feasibility study and EIS with the following agencies: Department of Health, Marine Resources Commission, State Air Pollution Control Board, State Water Control Board, Office of Emergency and Energy Services, Virginia Institute of Marine Science, Virginia Port Authority, Virginia Research Center for Archaeology, Department of Planning and Budget.

The review concluded that the Commonwealth concurs with the District Engineer's recommended plan and suggests the Corps take all reasonable steps to safeguard the environment and mitigate adverse project impacts. The Virginia Port Authority has indicated its intent to provide the items of local cooperation.

Views of Federal and Regional Agencies.—The following views are the results of district coordination.

The U.S. Department of the Interior, Office of the Secretary indicated that the Draft Environmental Impact Statement does not address the secondary and long-term environmental impacts of the alternatives for removing pilings at the mudline.

The U.S. Department of the Interior, Fish and Wildlife Service, has no objections to the recommendation for a Federal project to remove drift sources from the Hampton Roads area and to dispose of the material in the Craney Island Disposal Facility. However, the Service does not concur in the selection of the pile removal option contained in the recommended plan.

The U.S. Department of Commerce, National Marine Fisheries Service, indicated concerns dealing with potential adverse impacts on marine life and the loss of marine habitat that would result with removal of debris.

The U.S. Environmental Protection Agency, Region III, concurs that the recommended plan is the preferred alternative.

The U.S. Department of Health and Human Services, Public Health Service, raised several questions concerning the legal aspects and motivational incentives required at the local level for removal of debris sources and suggested that consideration be given to recycling debris material.

The U.S. Fifth Coast Guard District, Marine Safety Office, stated concern that some abandoned vessels may contain oil or other potential pollutants and that these wrecks should be surveyed prior to removal.

Status of Environmental Impact Statement (EIS).—Draft EIS filed with EPA on December 18, 1981.

Project Costs.—

Federal: $2,133,000.

Non-Federal: $4,335,000.

Description of Non-Federal Implementation Costs.—Pursuant to Public Law 94-537 and Section 202 of the Water Resources Development Act of 1976, non-Federal interests will: (1) contribute in cash one-third of the first cost for removal of debris which cannot be attributed to an identifiable owner; (2) contribute in cash 100 percent of the first cost for removal of debris which is attributable to an identifiable owner; and (3) make necessary repairs to deteriorated waterfront structures in use.

Benefit/Cost Ratio.—1.1.

Remarks.—The report presents the results of the study on the drift and debris problem in Hampton Roads and its tributary waters. It was determined that the presence of floating debris originating from deteriorating waterfront structures, abandoned vessels, and shoreline facilities affects navigation safety and efficiency. The ongoing Federal drift removal program authorized in 1950 only provides for the removal of floating debris from authorized channels and connecting waterways. Continuing reports of collisions from recreational and commercial navigation interests suggest that drift collection as presently performed is not sufficient, in itself, to eliminate the problem. In this regard, the study gives consideration to locating and removing sources of debris before it can enter the waterways as drift.

The alternative plans considered consisted of combinations of methods to accomplish the three main tasks of debris collection, removal, and disposal. The collection and removal stages are generally the same except for the method of pile extraction. Four methods were investigated which consider whether open pilings will be cut off at the bottom contour (mudline), pulled intact, or a combination of cutting and pulling. The disposal plans which were analyzed are divided into four categories: (1) destruction by burning; (2) reuse as a source of energy or recycling into lumber or other wood products; (3) burying in a landfill; and (4) ocean disposal for habitat creation.

The Secretary is directed to give further consideration to the pile removal alternatives, and to include any recommendations thereto in any report submitted pursuant to subsection (b) of Section 501.

RUDEE INLET, VIRGINIA

Location.—Rudee Inlet is located on the Atlantic Ocean in the City of Virginia Beach, Virginia.

Authority for Report.—The report on the feasibility of providing beach erosion and hurricane protection to the Virginia Beach shoreline was completed by the Norfolk District, Corps of Engineers in 1970. It recommended protection to the beach front from Rudee Inlet north to 89th Street. As a result of the report, Congress authorized in Section 1 of the Water Resources Development Act of 1974, a Phase I stage of Advanced Engineering and Design.

On September 1, 1972, the Norfolk District was authorized to prepare an interim report for Rudee Inlet in connection with a study of Virginia Beach Streams authorized by the Committee on Public Works of the House of Representatives on June 21, 1965.

The report was prepared in February 1974 and submitted to higher authority.

In view of the close relationship of Rudee Inlet to the beach erosion and hurricane protection project, the Chief of Engineers approved inclusion of Rudee Inlet as part of the Virginia Beach Phase I study in July 1974. In December 1981, the Division Engineer approved an interim report on the navigational features of Rudee Inlet.

Description of Recommended Plan.—The recommended plan would include the construction and maintenance of a channel 3,675 feet long. The entrance channel would be 10 feet deep mean low water (m.l.w.) and 110 feet wide from the Atlantic Ocean into Rudee Inlet up to the existing old south jetty adjacent to the pump house, thence 72 feet wide through the rest of the inlet. The channel west of the inlet would be 7 feet deep m.l.w. and 72 feet wide from the entrance channel to the General Booth Boulevard Bridge including a safety area just west of the entrance channel; 53 feet wide under the bridge; 200 feet wide in the safety area just west of the bridge; and 175 feet wide thereafter to the upper limit of the project in Lake Rudee. The wood and steel sheet piling on the north bank of the entrance channel near the restaurant would be replaced initially and again every 30 years with new steel sheet piling. The fillet of sand south of the weir would be removed initially to enable the weir-sand trap system to operate properly. The wooden weir and stone jetties would remain intact. Initial dredging would involve the removal of 206,000 cubic yards of material. Material from the entrance channel (38,000 cubic yards), sand trap (103,000 cubic yards), and fillet (35,000 cubic yards) is sand and would be used for beach nourishment on the downdrift beach north of the inlet. The remaining 30,000 cubic yards of fine-grained material would be placed in anoxic 38-foot (m.l.w.) depressions in Lakes Rudee and Wesley.

Views of States and Non-Federal Interests.—There are no objections to the selected plan from any state or local agency. There is one letter of objection concerning diposal from local residents who own lake bottom in Lake Wesley. It was explained that the city would provide that land to the Federal Government as an item of local cooperation. Disposal techniques to minimize turbidity were also explained. Several minor comments were made regarding possible ground water leakage in Lake Rudee, lack of data from scientific studies, possible beach erosion due to project construction and maintenance, interference with beach activities and adequacy of sand transfer, etc. In each case, explanations were made or the report was revised accordingly. The City of Virginia Beach has submitted a letter of intent regarding the items of local cooperation.

Views of Federal and Regional Agencies.—There are no objections to the selected plan from any Federal or regional agency. Several minor comments were made regarding possible ground water leakage in Lake Rudee, lack of references to scientific studies, possible future boat traffic, congestion in the navigation channel, possible future decrease in water quality, benefit analysis, and questions on policy, etc. In each case, explanations were made or the report was revised accordingly.

Status of Final Environmental Impact Statement.—The environmental assessment is available at the district office.

Project Costs.—

Federal: $1,124,000.

Non-Federal: $334,000.

Description of Non-Federal Implementation Costs.—

Initial construction	$193,700
Lands, easements, and rights-of-way	140,000
Total	333,700

Benefit/Cost Ratio.—1.7.

Remarks.—The City of Virginia Beach has spent about $5 million since 1965 for the construction and maintenance of the rock jetties, the weir-sand system, and the navigation channel at Rudee Inlet. Almost continuous dredging is performed in an attempt to keep the entrance channel at a safe navigable depth. However the city-owned hydraulic dredges are unable to operate in areas exposed to any significant wave climate, especially the area from the inlet mouth seaward. The eductor system has not functioned well in the past; it has been subject to a considerable amount of down time and requires several supervisory personnel. These difficulties with the dredges and the eductor system, coupled with the large volume of northward moving littoral drift have created severe shoaling problems at the inlet.

Boat operators continue to use Rudee Inlet in spite of the restricted and dangerous conditions because it provides quick access to the ocean for fishing and boating. A substantial commercial fishing fleet is based at the inlet for this reason. Because of the proximity of Rudee Inlet to the Virginia Beach resort area, the charter and party boat fleet is quite active. In addition, a substantial number of very large recreational craft are also based here, and most operators believe that it is only a matter of time before some serious accidents occur.

Boat operators along the east coast consider Rudee Inlet undependable and often quite dangerous to navigate. At least one transient boat sank at the entrance to the inlet. As a result, transients are reluctant to use the inlet.

ATLANTIC INTRACOASTAL WATERWAY BRIDGES, NORTH CAROLINA

Location.—The three bridges are located in Eastern North Carolina: Core Creek Bridge located approximately 8 miles north of Morehead City, N.C.; Fairfield Bridge located approximately 75 miles east of Washington, N.C.; and Hobucken Bridge located approximately 30 miles east of New Bern, N.C.

Authority for Report.—Senate Public Works Committee resolution adopted September 30, 1968; House Public Works Committee resolution adopted December 11, 1969.

Description of Recommended Plan.—Modification of the provisions of local cooperation required by Section 101 of the River and Harbor Act of 1970 (P.L. 91-611) to relieve the State of North Carolina from the obligation of contributing 25 percent of the cost of replacing the bridges.

Views of States and Non-Federal Interests.—The State of North Carolina has agreed to assume ownership and maintenance of the structures after completion.

Views of Federal and Regional Agencies.—Not applicable to this proposal.

Status of Environmental Impact Statement (EIS).—The original EIS covering all five bridges was filed in November of 1970. No environmental document is required for this proposal.

Project Costs.—$32,036,000 (all Federal).

Note: Seventy-five percent of this cost is already authorized by Section 101 of the River and Harbor Act of 1970.

Description of Non-Federal Operation and Maintenance Cost.—Inspection and upkeep of the entire structure and roadway, navigation lights, fender system, and maintenance of adjacent grounds.

Remarks.—Replacement of five Federal substandard highway bridges was authorized in the 1970 River and Harbor Act with 75 percent Federal funding and 25 percent shared by the State of North Carolina. In 1974 the State of North Carolina withdrew its cost-sharing offer due to lack of highway funds. A post-authorization change report requesting 100 percent Federal funding for all five bridges was submitted in 1975. Section 110 of the Water Resources Development Act of 1976 modified the terms of local cooperation to delete the non-Federal cost-sharing requirement for the Wilkerson Creek, and Coinjock Bridges. The three remaining bridges (Core Creek Fairfield, and Hobucken) were not included in this modification. All three bridges were constructed between 1930 and 1935, are grossly inadequate from the standpoint of roadway width and design loadings and have restricted vertical clearances. These substandard features together with the poor physical condition present potential and growing traffic hazards.

These bridges, which cross the Atlantic Intracoastal Waterway, were constructed, and are owned, by the United States.

RICHARD B. RUSSELL DAM AND LAKE, GA. AND S.C.

Location.—The project is located in the Piedmont Plateau within Anderson and Abbeville Counties, South Carolina, and Hartwell and Elbert Counties, Georgia.

Authority for Report.—Section 2(c) of the Fish and Wildlife Coordination Act of 1958 (Public Law 85–624).

Description of Recommended Plan.—The recommended plan includes acquisition of about 11,400 acres of wildlife lands in Georgia; about 10,100 acres of wildlife lands in South Carolina; more intensive wildlife management of 6,713 acres of Federally owned land at Clarks Hill Reservoir; fisheries studies to determine impacts of the Richard B. Russell Lake on existing fisheries; and the stocking of trout in South Carolina waters. Management and maintenance of wildlife lands will be by the State fish and game agencies.

Views of States and Non-Federal Interests.—Georgia and South Carolina, as well as the environmental community, are in support of the recommended plan. South Carolina, however, wants a position of flexibility maintained on the 3,940 acres of Federally-owned Clarks Hill lands. The Clarks Hill-Russell Development Authority, a creation of the state government, wants to develop certain land areas, identified for intensive wildlife management in the Plan, for limited and controlled private residential/recreational development in the area.

Views of Federal and Regional Agencies.—The U.S. Fish and Wildlife Service fully supports the recommended plan. Other Federal agencies also concurred.

Status of Environmental Impact Statement (EIS).—Notice of availability of the Final Environmental Impact Statement appeared in the Federal Register dated December 11, 1981.

Project Costs.—$18,700,000 (all Federal).

Description of Non-Federal Operation and Maintenance Costs.—The States will be responsible for operating and maintaining the mitigation sites. They will be responsible for any funds needed in excess of the annual reimbursements based on a plan of operation as approved by the Chief of Engineers. Annual reimbursements shall be reduced by net revenues for sale of any timber off the mitigation sites.

Remarks.—The Committee has added language directing the Secretary and the State of South Carolina, in consultation with the United States Fish and Wildlife Service, to identify those Federal lands at Clarks Hill Lake to be utilized for purposes of fish and wildlife habitat mitigation. Not later than one year after the date of enactment of the bill, the Secretary is to transmit to the House Committee on Public Works and Transportation and the Senate Committee on Environment and Public Works a report describing the lands so identified. The authorized project includes the Federal lands described in this report by the Secretary. Except for funds from the Environmental Protection and Mitigation Fund, no funds may be appropriated for acquisition of land for, or actual construction of, the project until approved by resolutions of the two Committees.

METROPOLITAN ATLANTA AREA, GEORGIA

Location.—The Metropolitan Atlanta Area is located in the Piedmont Province of north-central Georgia, encompassing Clayton, Cobb, Douglas, Rockdale, DeKalb, Fulton, and Gwinnett Counties. Parts of contiguous counties were added to the study area to the extent that their problems and solutions were regionally interrelated to those of the 7-county study area. These counties are Forsyth, Hall, Fayette, Coweta, and Henry.

Authority for Report.—Senate Public Works Committee resolution adopted March 2, 1972.

Problems and Opportunities Identified in Study.—Because of rapid growth of the Metropolitan Atlanta Area, local governments are experiencing difficulty in providing adequate facilities for water supply, wastewater treatment, drainage and urban runoff, flood control and recreation. As a result, local interests desire a plan for development, utilization and conservation of water and related land resources. The study developed a comprehensive water management plan that will provide alternative choices in the use of water-related resources.

Alternative Plans Considered.—Detailed plans consisted of development of comprehensive water management alternatives including (1) An areawide wastewater management plan; (2) A regional water resource and distribution plan; (3) A short- and long-term plan for managing the Lake Lanier/Chattahoochee River System; and (4) A plan for reducing flood damages in the Peachtree/Nancy Creek river basin. The recommended plan consists of that portion of these measures which is within the traditional responsibilities of the Corps of Engineers.

Description of Recommended Plan.—The recommended plan includes construction of a reregulation dam and reservoir for water supply on the Chattahoochee River 6.3 miles downstream of Buford Dam. The project would have 4,100 acre-feet of storage at conservation pool elevation 921.75.

Physical Date of Project Features.—

Reservoir:	
Storage at maximum conservation pool, acre-feet	4,100
Storage at minimum conservation pool, acre-feet	700
Storage at spillway crest, acre-feet	300
Elevation of maximum conservation pool, feet m.s.l	921.75
Elevation of minimum conservation pool, feet m.s.l	913.5
Earth Embankment, Concrete Dam: Top elevation, feet m.s.l	925.75
Spillway:	
Net length feet	150
Crest elevation, feet m.s.l	911.25
Height of gates, feet	12.5
Elevation of top of gates in closed position, feet m.s.l	923.75
Required gate bottom clearance, feet m.s.l	927.75

Views of State and Non-Federal Interests.—The State of Georgia supported the plan contingent upon more detailed environmental studies during the advanced engineering and design phase of the project. The Chattahoochee River Coalition (eight environmental groups) has questioned the project need and economics and is strongly opposed to construction of the reregulation dam. The City of Atlanta wants detailed studies and planning authorized, with construction contingent on resolution of environmental problems.

Views of Federal and Regional Agencies.—The Environmental Protection Agency and the U.S. Fish and Wildlife Service recommend additional studies to refine water quality predictions and to determine the effects of the changed flow regime on downstream recreation and on the downstream fishery. The National Park Service states that the project will compromise the usefulness of lands already acquired for park purposes.

Status of Environmental Impact Statement (EIS).—The Final EIS was filed with EPA on December 24, 1981.

Project Cost.—

Federal: $24,500,000 (All reimbursable from power companies ($6,125,000) and local water supply agencies ($18,375,000).).

Benefit/Cost Ratio.—1.8.

Remarks.—The Committee has included language requiring the Secretary, in consultation with appropriate Federal, State and local agencies, to further evaluate the possible effects of the proposed project on fish and wildlife habitat and related resources. Not later than one year after the date of enactment of the bill, the Secretary is to transmit to the House Committee on Public Works and Transportation and the Senate Committee on Environment and Public Works a report of this evaluation, along with recommendations for additional measures which the Secretary determines to be necessary and appropriate to mitigate the adverse effects of the project on fish and wildlife habitat and related resources. Except for funds from the Environmental Protection and Mitigation Fund, no appropriations may be made for acquisition of land for, or actual construction of, the project until approved by resolutions of the two Committees.

The provision does not permit the construction of this project by the Corps of Engineers or any other public body or agency until approval has been obtained frm the House and Senate Committees as provided by this section and until there is compliance with the provision of P.L. 95-344, the law which establishes the Chattahoochee River National Recreation Area in the State of Georgia.

It is the intention of the Committee that the evaluation and report to be conducted by the Corps of Engineers shall include, but not be limited to, the following considerations:

(1) Trout hatchery water supply;

(2) Methods for mitigating and preserving downstream fisheries, including turbidity, water temperature and water regimes;

(3) Reregulation dam design compatible with downstream fisheries management;

(4) Instream flows below the reregulation dam;

(5) Land acquisition to mitigate losses of wildlife habitat and angler access, and for losses to the Chattahoochee River National Recreation Area;

(6) Protection of state-listed threatened and endangered plants;

(7) Impact on the distribution of development in the river corridor;

(8) Impact on recreational use within the Chattahoochee River National Recreation Area, within the river corridor, and on the river itself.

The area to be studied should include the "river corridor" as defined in the State of Georgia's "Metropolitan River Protection Act" (that is 2,000 feet on each side of the river), going from the site of the dam downstream to Standing Peachtree Creek.

JACKSONVILLE HARBOR (MILL COVE), FLA.

Location.—Mill Cove is on the St. Johns River in Jacksonville, Florida.

Authority for Report.—House Public Works Committee Resolution adopted July 10, 1968.

Description of Recommendation Plan.—Existing openings into Mill Cove would be enlarged for more flow; diversion features would be provided to direct the flow within the cove; and a small boat channel would be provided to a depth of 6 feet for safe navigation.

Physical Data on Project Features.—

Structural

(a) Channelization to improve flows and rduce shoaling as well as navigation restrictions to small commerical and recreational boats;

(b) Land masses to divert flow for better circulation and control of shoaling in Mill Cove.

Environmental Features

Mitigation on project lands to replace marsh areas destroyed by the project.

Views of States and Non-Federal Interests.—The State has no objection to presenting the report to Congress with the understanding that State concerns regarding areas for dredged material disposal will be satisfied before construction and that State water quality permits will be obtained. The Governor believes the State's concerns may be ameliorated through coordinated efforts between the State and the Jacksonville Port Authority. Non-Federal interests indicated a willingness to provide lands and dikes for disposal of dredged material.

Views of Federal and Regional Agencies.—The U.S. Departments of Interior and Housing and Urban Development have no objections to the project. The U.S. Environmental Protection Agency remains unconvinced that the overall environmental impact will be as inconsequential or as short-term as the Final Environmental Impact Statement indicates. However, the EPA does not object to the project but proposes that a postconstruction monitoring/evaluation program be conducted to provide an opportunity to resolve differences of opinions on many typical water resources projects.

Project Costs.—

Federal: $5,700,000.

Non-Federal: 0.

Benefit/Cost Ratio.—1.5.

Remarks.—Current problems relate to shoaling conditions induced within Mill Cove by construction of the Jacksonville Harbor navigation project. Shallow depths restrict small boat navigation and adversely impact on residential property values and recreational resources in the area.

The Dame Point-Fulton Cutoff is a completed portion of the Jacksonville Harbor project with a channel depth of 38 feet. Recommended modifications involve a larger opening in the control structure built as part of the cutoff to control cross currents. The larger opening would improve flow and help reduce shoaling in the Mill Cove area without impeding ship traffic. The recommended navigation channel would restore navigable conditions previously available in the cove before harbor-induced shoaling reduced depths. The cost of the project is entirely Federal because the purpose of the project is to mitigate adverse effects of the Jacksonville Harbor navigation project.

Because of the concerns expressed about the possible lack of adequate disposal sites in the area, the Committee has added the requirement that the Secretary, in consultation with the State of Florida, study the adequacy of available dredged material disposal areas for construction, operation, and maintenance of the project. Not later than one year after the date of enactment of the Act, the Secretary is to transmit to the House Committee on Public Works and Transportation and the Senate Committee on Environment and Public Works a report on the results of the study, along with recommendations for modifications in the project which the Secretary determines necessary and appropriate to assure that adequate dredged material disposal areas are available. The project authorization includes any such recommended modifications. Except for funds from the Environmental Protection and Mitigation Fund, no appropriations may be made for the acquisition of land for, or the actual construction of, the project until approved by resolutions of the two Committees.

YAZOO BACKWATER AREA, MISSISSIPPI

Location.—The Yazoo Backwater Area is located in west-central Mississippi between the east bank Mississippi River levee on the west and the hills east of the Yazoo River. The area extends from Vicksburg to the vicinity of Greenville. The Yazoo Area portion of the backwater area lies on the west bank of the Yazoo River and the W. M. Whittington Auxiliary Channel and contains about 539,000 acres within the 100-year frequency flood plain.

Authority for Report.—Fish and Wildlife Coordination Act of 1958.

Description of Recommended Plan.—The recommended plan of the Mississippi River Commission consists of the purchase of 11,300 acres of woodlands in perpetual land use easements or any other combination of easements and fee title that would provide the same level of mitigation. The recommended plan would provide mitigation for wildlife habitat losses attributable to the proposed Yazoo Area Pump Project.

Views of States and Non-Federal Interests.—The State of Mississippi and local interests favor land use easements as opposed to fee title acquisition. Major local support was expressed for easements that would be for the life of the project instead of perpetual.

Views of Federal and Regional Agencies.—The U.S. Environmental Protection Agency has environmental reservations concerning the authorized pumping plant. The Fish and Wildlife Service does not support the pumping plant because of its adverse effect on natural flood storage and wetlands, but will not oppose it if the mitigation plan recommended by the District Engineer is adopted. That plan calls for the acquisition of 40,000 acres for mitigation of fish and wildlife losses caused by the entire Yazoo Backwater Project, not just the pumping plant.

Status of Final Environmental Impact Statement.—The Final EIS is under review and has not yet been filed with EPA.

Project Costs.—

Federal: $17,610,000.

Non-Federal: 0.

Since the recommended mitigation plan is for a project which is the responsibility of the Federal Government, there would be no non-Federal cost sharing for the mitigation measures.

Benefit/Cost Ratio.—Not applicable to mitigation projects.

Remarks.—Since 1966, when soybeans became the major cash crop in the Nation, productive bottomland forests that provide forest products and habitat for a variety of wildlife have been sharply reduced. Approximately 75 percent of the 539,000 acres of lands to be protected from the 100-year frequency flood by the Yazoo Area Pump Project have been cleared leaving about 141,000 acres of woodlands. It is estimated that about 27,000 acres of these remaining woodlands would be cleared in the next 50 years. There is a need to maintain quality habitat to support fish and wildlife resources.

The Committee has determined that mitigation for the overall Yazoo Backwater Project is desirable, and has accordingly included the requirement that 40,000 acres of mitigation lands be acquired in fee and esasement as recommended by the District Engineer.

GREENVILLE HARBOR, MISS.

Location.—The study area is located about 2.5 miles downstream from Greenville, Mississippi, and 1 mile from the Mississippi River navigation channel on the east bank of Lake Ferguson, an old Mississippi River bendway.

Authority for Report.—Water Resources Development Act of 1974.

Description of Recommended Plan.—The plan includes widening the existing channel into Greenville Harbor and dredging an off-river inner harbor channel. Material from the channels would be placed to raise the adjacent lands to flood-free and 25-year flood frequency elevations. Improvements would be constructed in two stages..

Physical Data on Project Features.—

(1) Navigation improvements include widening the channel into Greenville Harbor from 250 to 500 feet, dredging an inner harbor channel 500 feet wide in two stages and 13,300 feet long into undeveloped lands adjacent to existing port area, and dredging a channel 300 feet wide by 1,500 feet long into La Grange Crevasse Area. All channels would have a minimum depth of 12 feet at lowest Mississippi River stages, with a 9-foot depth to be provided until a greater depth is maintained on the Mississippi River.

(2) The material dredged from the channels would be used to provide 360 acres of landfill for development by water transportation-oriented industries.

(3) The proposed improvements would require 900 acres of rights-of-way, all of which are owned by the Greenville Port Commission and dedicated to port development.

Views of States and Non-Federal Interests.—The State of Mississippi does not agree with staged construction, the initial dredging to 9 feet instead of 12, and the non-Federal cost for fleeting areas. It states that the channel depth in the Mississippi River is 9 feet only during periods of low water, and most of the time barges with a 12-foot draft are used. With regard to staged construction, the State believes development of the area will occur sooner than the Corps estimates. Also, the State disagrees with the Corps' designation of the fleeting areas as being associated with localized operations and, therefore, being a non-Federal responsibility. The State of Mississippi feels they are properly a project cost because they serve the many barge lines operating throughout the inland waterway system.

Views of Federal and Regional Agencies.—EPA is concerned about pollution of the bay in which the harbor is located which could result from surface runoff, and recommends that a culvert or ditch be constructed at the head of the harbor area to provide circulation.

The Department of the Interior has no objection.

Status of Final Environmental Impact Statement.—The Final Environmental Impact Statement was filed with the Council on Environmental Quality in August of 1973.

Project Costs.—

Federal: $28,800,000.

Non-Federal: $11,800,000.

Description of Non-Federal Implementation Costs.—Lands, easements, and rights-of-way for construction and maintenance; retention works for dredged material; construction of fleeting and berthing areas; and cash contribution for land enhancement.

Benefit/Cost Ratio.—7.3.

Remarks.—All suitable waterfront industrial sites in the Greenville, Mississippi, area have been developed or committed to development, and the present public terminal is approaching capacity. There is a need for additional general navigation facilities to serve the area's projected water-oriented industrial growth and expansion of the public terminal.

The Committee agrees with the need to construct the project to its full dimensions initially, rather than in stages, and has accordingly included this direction in the authorizing language.

The Corps of Engineers is also directed to further investigate the water quality concerns raised by EPA during preconstruction planning, and include any necessary project provisions, to ensure the protection of water quality.

VICKSBURG HARBOR, MISS.

Location.—The study area includes lands along the Yazoo and Mississippi Rivers in the vicinity of Vicksburg, Mississippi.

Authority for Report.—Senate Public Works Committee Resolution adopted September 11, 1969.

Description of Recommended Plan.—An off-river navigation channel would be dredged to provide water access to new industrial lands Dredged material from the channel would be placed to raise the lands adjacent to the channel to a flood-free elevation. Existing channels would be enlarged to improve access to the new port area and relieve existing congestion. Improvements would be constructed in two stages.

Physical Data on Project Features.—

Structural

(a) The navigation improvements include a slackwater harbor channel 500 feet wide and 12,000 feet long, a 500-foot-wide channel on the Yazoo River Diversion Canal along the city front, a distance of about 15,000 feet; a 300-foot-wide channel on the remainder of the Yazoo River Diversion Canal to the slackwater harbor, a distance of about 10,000 feet; and widening the existing approach channel into the Warren County Industrial Center from 150 feet to 300 feet. The channels would have a minimum depth of 12 feet at the lowest Mississippi River stage with 9 feet of depth to be provided until greater depth is maintained on the Mississippi River.

(b) The material dredged from the channels will be used to provide 500 acres of landfill for development by water transportation-oriented industries.

(c) Over the 50-year economic life, 1,800 acres of rights-of-way will be required. Warren County presently owns about 820 acres of the lands required. About 190 acres are located in the State of Louisiana.

Environmental Features

The acquisition of 1,000 acres of wooded lands is included as a project feature to offset the losses associated with the wooded lands required for project construction and maintenance.

Views of States and Non-Federal Interests.—The State of Louisiana had no specific comments or recommendations. The State of Mississippi supports the project.

Views of Federal and Regional Agencies.—The U.S. Environmental Protection Agency expressed concern over various aspects of water quality associated with the harbor improvements. Additional water quality studies will be undertaken during advanced engineering and design studies. The Department of the Interior expressed objection to proposed mitigation (cash payment), and recommended land acquisition. The Chief of Engineer's response stated that the proposed mitigation was being modified to provide for the acquisition of 1,000 acres.

Status of Final Environmental Impact Statement.—The Final EIS was submitted to Secretary of the Army along with the feasibility report on August 20, 1979.

Project Costs.—

Federal: $54,700,000.

Non-Federal: $14,400,000.

Description of Non-Federal Implementation Costs.—Non-federal interests provide lands, easements, and rights-of-way for construction and maintenance; retention works for dredged material; beautification features; construction of fleeting and berthing areas; cash contribution for land enhancement; and share in mitigation first costs.

Remarks.—Essentially all suitable waterfront industrial lands in the Vicksburg, Mississippi area are being used or are committed to development. There is a need for general navigation facilities to serve the area's projected water-oriented industrial growth. The Yazoo River Diversion Canal and approach channel to the existing harbor project have approached capacity, and increased channel widths are needed to ensure safe operation of existing and projected vessel traffic.

The authorization provides for initial project construction to the full project dimensions, rather than in stages, so that the full benefits of the project may be realized at the earliest date.

MEMPHIS HARBOR, TENN.

Location.—Memphis Harbor is an addition to the existing facilities and is located on President's Island south of Memphis, Tennessee.

Authority for Report.—Senate Public Works Committee resolution adopted April 30, 1965.

Description of Recommended Plan.—A new channel will be dredged into President's Island for a slackwater harbor with placement of dredged material to create a 1,000-acre floodfree fill for industrial development.

Physical Data on Project Features.—

Structural

(a) A navigation channel 500 by 9 feet, and 4.9 miles long will provide for 1,000 acres of floodfree fill for industrial development and meet projected navigation and harbor needs. The proposed navigation channel and landfill will require the purchase of 2,028 acres of rights-of-way and the relocation of an interceptor sewer line. The channel will be deepened to 12 feet when a minimum 12-foot channel exists in the Mississippi River.

Environmental Features

The recommended plan will include landscaping and erosion control features which will improve the esthetics of the project area.

Views of States and Non-Federal Interests.—The State of Tennessee concurred with the recommended plan, with the exception that it recommended a 500-foot by 12-foot navigation channel. The State of Arkansas expressed no objections to the plan. The State of Mississippi expressed no objection to the plan. A letter of intent to comply with the local cooperation requirements as outlined in the District Engineer's report was provided by the Memphis and Shelby County Port Commissions.

Views of Federal and Regional Agencies.—The United States Coast Guard expressed no objection to the project as recommended. The Department of Agriculture requested a description of this project's relationship to the Nonconnah Creek Project and dedication of a green strip around President's Island to provide for wildlife and recreation opportunities. The Nonconnah Creek Project is not related to this project and no significant impacts will result from this project. The U.S. Department of the Interior disagreed with no mitigation being included with the recommended plan.

EPA has concerns about the water quality of the proposed dead-end canal and wants measures installed for flushing.

Status of Environmental Impact Statement (EIS).—The Final EIS was filed with EPA on February 5, 1980.

Project Costs.—

Federal: $42,010,000.

Non-Federal: $63,110,000.

Description of Non-Federal Implementation Costs.—Non-Federal interests will provide overdepth and overwidth dredging necessary to create 1,000 acres of floodfree fill; landscaping and erosion control measures; land enhancement costs; lands, easements and rights-of-way; dikes and appurtenances for retention of dredged material; and necessary relocations.

Benefit/Cost Ratio.—4.2.

Remarks.—The project authorization provides for initial construction of the project to the full project dimensions. Barges requiring a depth of 12 feet operate on the Mississippi except during periods of low water, and constructing the project to 12 feet deep initially will enable it to accommodate these barges immediately.

The Secretary is directed to reevaluate, in consultation with the Fish and Wildlife Service, the need for mitigation of project-induced losses of bottomland hardwood habitat. The Secretary is also directed, in consultation with the U.S. Environmental Protection Agency, to conduct further studies of the quality of the water in the project area and the need for measures to prevent adverse effects on the quality of the water. Not later than one year after the date of enactment of the Act, the Secretary is to transmit to the House Committee on Public Works and Transportation and the Senate Committee on Environment and Public Works a report on the reevaluation and studies, together with recommendations for additional lands and measures to prevent adverse effects on water quality. The project authorization includes these additional lands, but not to exceed 500 acres, and the measures for water quality. Except for funds for from the Environmental Protection and Mitigation Fund, no appropriations may be made for the acquisition of land for, or the actual construction of, the project until approved by resolutions of the two Committees.

LAKE PONTCHARTRAIN NORTH SHORE, LA.

Location.—The study area is in southeastern Louisiana on the north shore of Lake Pontchartrain, vicinity of New Orleans.

Authority for Report.—Section 206 of the Flood Control Act of 1958; Section 209 of the Flood Control Act of 1962; Senate Public Works Committee resolutions adopted July 22, 1966 and November 25, 1969, and House Public Works Committee resolution adopted December 2, 1970.

Description of Recommended Plans.—The entrance channel, mooring area and jetties at the mouth of Bayou Castine would be maintained by the Federal Government.

The shoreline along Fontainebleau State Park would be restored by the provision of a 24-acre dry sand beach, which would be periodically nourished.

Physical Data on Project Features.—The maintenance work includes maintaining the Bayou Castine jetties and requires removal of about 40,000 cubic yards of material which would accumulate every 4 years. The silty sand material to be dredged would be placed at Fountainebleau State Park as a base for beach construction. The width of the dredged channel would vary from 140 feet in the lake to 240 feet at the north end of the east jetty to about 50 feet at the boat launching ramp. Its length would be 2,100 feet.

The plan involves the placement of sand over a 57-acre area lakeward from the existing shoreline fronting the developed facilities and a large portion of a natural wetland area at Fontainebleau State Park, together with a beach nourishment program over the life of the project. The initial construction would provide a 24-acre dry sand beach which would be reduced to 14 acres by erosion of the shoreline between nourishment periods. Initial construction would involve the transfer of about 175,000 cubic yards of sands, most of which would be pumped from Milton's Island Trend in Lake Pontchartrain to the beach site, a distance of about 6 miles.

To offset erosion of the sand fill material, which would occur at a rate of 20 feet per year, a beach nourishment program is required comprising the placement of between 80,000 and 100,000 cubic yards of sand every 4 to 5 years.

Views of State.—The State of Louisiana concurred with the report. The Lousiana Department of Wildlife and Fisheries has offered no objection to the recommended improvements.

*Views of Federal and Regional Agencies.*The U.S. Department of the Interior concurs in the report, except as it relates to the alternatives of using onshore sand for beach replenishment at Fontainebleau State Park. The U.S. Department of Agriculture offered no objections. The U.S. Department of Commerce transmitted comments from the National Marine Fisheries Service requesting further consideration of adopting use of any upland source of sand. The U.S. Department of Health, Education and Welfare, Public Health Service, noted that if the dredged material is essentially sand, the project will not pose any vectorborne disease problems. The U.S. Environmental Protection Agency offered no objections to the project as it relates to EPA's legislative mandates. The Department of Transportation, United States Coast Guard, offered no comments or objections. Comments will be addressed during post-authorization studies.

Status of Environmental Impact Statement (EIS).—The final EIS was filed with EPA on March 6, 1981.

Project Costs. —

Federal: $850,000.

Non-Federal: $360,000.

Description of Non-Federal Implementation Costs.—Lands with traditional cost sharing would be provided, including borrow and disposal areas, prior to Federal assumption of maintenance of the Bayou Castine entrance channel, mooring area and jetties. Lands, easements and rights-of-way will be provided, plus a cash contribution for periodic beach nourishment.

Estimated Annual Operation and Maintenance Costs (October 1982 price levels).—

Traditional financing/cost-sharing

Bayou Castine entrance channel maintenance:	
Federal: Corps of Engineers	$38,000
Non-Federal: Louisiana	0
Fontainebleau State Park Beach:	
Federal (beach nourishment): Corps of Engineers	63,700
Non-Federal (beach nourishment): Louisiana	27,300

Description of Non-Federal Responsibilities.—Non-Federal interests will maintain berthing areas, mooring facilities, launching ramps, parking areas, and access roads open and available to all on equal terms at the mouth of Bayou Castine and maintain access facilities including parking and recreation facilities at Fontainebleau State Park. Local interests will also provide a cash contribution for periodic nourishment for the life of the project.

Benefit/Cost Ratio.—4.5.

ATCHAFALAYA BASIN, LA.

Location.—The study area is located in south-central Lousiana in parts of 11 parishes and encompasses the Red River backwater area above Old River, the area between the East and West Atchafalaya Basin Protection Levees from Simmesport to the Gulf of Mexico, and the backwater area east and northeast of Morgan City. Population centers of Baton Rouge (east) and Lafayette (west) are adjacent to the study area at the latitude of Interstate Highway I-10.

Authority for Report.—This study was authorized by the following resolutions and action by the Chief of Engineers: Resolution—June 1968, Committee on Public Works, United States Senate: Review Old River Control System.

Resolutions—1972, Committees on Public Works, United States Senate—March 1972, and House of Representatives—June 1972.

Chief of Engineer's action—June 1976: Combined Phase I GDM for authorized features with studies authorized by U.S. Congress to develop a comprehensive mulitipurpose plan for the Atchafalaya Basin Floodway System.

Description of Recommended Plan.—The recommended plan contains three groups of features: those authorized and ongoing, those authorized which require the Chief of Engineer's approval, and those which require Congressional authorization. The ongoing features encompass continuation of the Old River complex operation for 70/30-percent distribution of flows to the Mississippi and Atchafalaya Rivers; modification of existing features, where required, to pass the project flood; and construction of bank stabilization measures along the Atchafalaya River main channel. Authorized features requiring approval by the Chief of Engineers are basically flood control measures and are associated with improvement of flow capability of channels and outlets, sediment control, flood protection, backwater flooding east of the floodway, and freshwater distribution. Features requiring Congressional action generally cover the environmental protection aspects and include nonstructural real estate interests, recreation, and management units.

The Chief of Engineers has addressed the three groups of features as follows:

(1) Features authorized and ongoing will continue to be implemented by the New Orleans District Commander.

(2) Features authorized and approved by the Chief of Engineers will be implemented under the discretionary authority of the Chief. Concerning backwater flooding east of Morgan City, the Chief has directed further studies for the engineering and biological parameters affecting the complex, dynamic, and delicate ecosystem of the Atchafalaya Bay-Terrebonne Marsh-backwater complex prior to construction of extensions of the east Atchafalaya Basin Protection Levee beyond the Avoca Island Cutoff Channel and/or other structural or nonstructural measures.

(3) Features requiring Congressional action are recommended for authorization and implementation.

Physical Data on Project Features Recommended for Authorization.—

Structural

(a) As a part of the management unit feature in the recommended plan, low-level weirs would be built at selected outlets from defined hydrologic units. They would serve to help maintain a hydraulic regime, in the future, similar to the existing one in each area for purposes of fish and wildlife enhancement.

(b) The recommended plan contains some limited canal and levee construction as a part of the management unit feature discussed above. Limited channelization of the Atchafalaya River, Wax Lake Outlet, and major basin distributaries would occur as a part of the channel training and distributary realignment feature for purposes of sediment control and to increase channel capacity to insure future passage of major floods.

(c) The recommended plan requires limited acquisition of lands in fee title or easements for such features as distributary realignments, levee raises, channel training, and possible future extension of the Avoca Island Levee. Numerous relocations would occur due to raising of existing levees. These real estate rights are for flood control purposes. Easements and/or rights-of-way would also be required for management units and miscellaneous improvements for environmental purposes.

Nonstructural

The recommended plan calls for Federal acquisition of flowage easements, developmental control easements, and environmental easements over most of the lower floodway south of Krotz Springs to insure unhampered use of the floodway during major floods and to protect the biological resources of the area. Federal participation with the State of Louisiana in the fee title purchase of approximately 50,000 acres of lands identified by the State as being available from "willing sellers" was recommended for public access. Federal fee title acquisition of 1,500 acres was recommended for recreational facilities development.

Recreation

Recreational development would consist of three developed and seven primitive campgrounds, one interpretive facility, boat-launching ramps, and other facilities complementary to outdoor recreational activities. These facilities would be located in the proximity of the Lower Atchafalaya Basin floodway on 1,500 acres to be acquired in fee title.

Water Use and Control

The management unit feature would retain water in separate and distinct hydrologic units which would facilitate recreational access into some of the areas.

The management unit feature would retain water for possible fish and wildlife enhancement purposes.

Environmental Features

The previously discussed easements, management units, and the like, would protect environmental values. The proposed environmental features would alleviate any need for mitigation of project-induced losses to fish and wildlife resources.

Views of States.—The Louisiana Department of Transportation and Development, Office of Public works (OPW), the agency designated by the Governor to coordinate water resources development project studies with Federal agencies, officially supports all the features of the recommended plan, except further studies of the Avoca Island Levee extension. OPW recommends immediate construction of the 14,000-foot interim levee extension.

The Louisiana Department of Wildlife and Fisheries supports the recommended action of the Chief of Engineers, opposes immediate extension of the Avoca Island Levee, and urges expedient initiation of the land acquisition/easement features.

The Louisiana Department of National Resources, Office of Forestry, acknowledged satisfactory resolution of its comments on the Draft Envrionmental Impact Statement. It also commented that during construction marketable timber present should be harvested and used rather than destroyed.

Views of Federal and Regional Agencies.—The U.S. Department of the Interior, Office of the Secretary, supported the recommendations of the Chief of Engineers and urged submission of the recommended plan to Congress. Special comments were included regarding opposition to extending the Avoca Island Levee and support for the real estate features.

The U.S. Environmental Protection Agency, Region VI, supported the recommendations of the Chief of Engineers and commented that, "The recommendation is an environmentally sound plan which is responsive to the full range of socioeconomic and ecological planning objectives."

The U.S. Department of Commerce, National Marine Fisheries Service, Southeast Region, review comments concentrated on the project features which would impact fishery resources and habitats. Support was indicated for the decision to delay construction of the Avoca Island Levee extension.

The U.S. Department of Agriculture, Office of the Secretary, commented that the management unit concept is feasible and that the plan would result in lower crop production in the project area; but indicated that the recommendations are a balanced approach and workable plan for addressing the water resources problems in the Atchafalaya Basin.

Status of Final Environmental Impact Statement.—The final Environmental Impact Statement was filed with EPA on August 20, 1982.

Project Costs.—

Federal: $1,011,720,000 [1]

[1] Total implementation cost for entire plan, including previously authorized features and features authorized in this Act. Federal requirement for implementation of work authorized in this Act is $195,000,000.

Non-Federal, State of Louisiana: 55,500,000 [1]

Description of Non-Federal Implementation Costs.—Non-Federal cost under traditional cost-sharing for the Mississippi River and Tributaries project includes costs for recreation development and fish and wildlife resource enhancement.

Estimated Annual Operation and Maintenance Costs.—

Corps of Engineers	[2] $17,011,000
Non-Federal: State of Louisiana	[2] 472,000
Total	17,483,000

[2] Total O&M costs for entire plan, including previously authorized features and features authorized in this Act.

Description of Non-Federal Operation and Maintenance Costs.—Non-Federal interests will be responsible for all operation and maintenance activities associated with recreation facilities and fish and wildlife resources of the recommended plan.

Benefit/Cost Ratio.—The flood control features of the recommended plan are integral, inseparable features of the authorized comprehensive Mississippi River and Tributaries project. Separable benefit-cost analyses are not computed for inseparable features of the project. The benefit-cost ratio for this comprehensive project is 16.7 to 1.

Remarks.—Implementation of the recommended plan would make a highly positive contribution to the protection and enhancement of areas of natural beauty and enjoyment; preservation of the quality of land and water resources; prevention of irreversible commitment of resources for future uses; and preservation and enhancement of valuable archeological, historical, biological, and geological resources and ecological systems.

CABIN CREEK, W. VA.

Location.—Within the Cabin Creek drainage area of Kanawha County, West Virginia.

Authority for Report.—Section 233 of the Flood Control Act of 1970, Public Law 91-611, approved December 31, 1970.

Description of Recommended Plan.—The plan involves measures for erosion and sediment control, flood damage reduction, water quality control, water supply, recreation, fish and wildlife enhancement, and social, economic and environmental improvements.

Physical Data of Recommended Project Features.—

Structural

(a) Erosion and sediment control measures would include remedial, or basic reclamation, on 31 major slide areas encompassing about 828 acres of unstable outslopes. Similar, but less extensive treatment would be given to 1,786 acres of minor outslope disturbances and 100 miles of abandoned haul roads. Treatment of mine refuse banks would be initiated on an estimated 318 acres. Partial sediment control would be provided by a trap structure located in the channel of Cabin Creek. The structure would consist of a steel sheetpile weir, primarily designed to trap coarse grain bedload materials and capable of holding about 10,000 cubic yards of materials.

(b) Flood damage prevention measures would embody both structural and nonstructural components. The structural components would consist of a channel rehabilitation project, 10.5 miles in length and a bottom width of 70 feet. About 48 acres of land along the present streambank would be cleared. Stone slope protection would be employed where necessary and about 72 acres would be seeded.

(c) The water quality control program would include measures for acid mine drainage abatement and treatment and the collection and treatment of domestic wastes.

(d) The water supply program would consist of upgrading some existing private systems and the development of additional distribution and storage facilities.

(e) The proposed project would require approximately 40 acres of permanent right-of-way, 1,528 acres of restrictive easements, and 2,908 acres of work easements. Construction of the project would necessitate the relocation or removal of 28 residential and 3 commercial structures. In addition, 21 mobile homes would be moved. Also, four vehicular bridges and one foot bridge would be replaced or modified.

Nonstructural

(a) The plan would include the development of flood plain management guidelines to provide for efficient use of the flood plain lands, and flood proofing of about 54 structures by either raising in place or relocation.

(b) The nonstructural plan would require 54 tracts of work easements.

Recreation

The recommended program for recreational development includes the establishment of three mini-parks and one community park with a comfort station. The three mini-parks would be located on one-acre sites adjacent to population clusters, and the community park would be located on a 2-acre site near the mouth of Cabin Creek. The parks would be day-use oriented, and include the usual playground equipment and picnic facilities. Fishery enhancement would occur as a beneficial side effect of acid mine drainage abatement, reduction of sedimentation, and the wastewater management program. Wildlife enhancement would be insured through the establishment of a demonstrational wildlife enhancement area on about 2,125 acres of land.

Views of State.—The State of West Virginia supports the proposed project.

Views of Federal Agencies.—The Departments of Agriculture; Health, Education and Welfare; and Transportation commented favorably on the project. The Department of the Interior expressed no objection to the flood control measures if the final program solutions are flexible so that the Fish and Wildlife Service and the Bureau of Mines are consulted in final planning and design. The Chief of Engineers replied that such consultation will be sought. The U.S. Environmental Protection Agency expressed environmental reservations due to a lack of information on the impact of project measures. The Department of Housing and Urban Development suggested that more information should be included on the National Flood Insurance Program.

Status of Environmental Impact Statement (EIS).—The Final EIS was filed with EPA on July 17, 1981.

Remarks.—The Surface Mining Control and Reclamation Act of 1977 was enacted after completion of the basic report. This Act provides authority for reclamation and restoration of land adversely affected by coal mining practices. Other authorities of other agencies are also available to implement various aspects of the overall plan. Accordingly, section 501 authorizes only the flood control features of the plan, including channel improvement on Cabin Creek, establishment of flood plain management guidelines, and supplemental flood proofing. The construction of the flood control features is to be coordinated with any construction by other Federal agencies of other features described in the report. The estimated Federal cost of authorized features is approximately $4,000,000.

OBION CREEK, KY.

Location.—The Obion Creek watershed comprises an area of about 321 square miles in Graves, Hickman, Carlisle, and Fulton Counties in southwest Kentucky.

Authority for Report.—The flood control project was authorized by the Flood Control Act of 1965 (P.L. 89-298). Under the authority of the Fish and Wildlife Coordination act of 1958 (Public Law 85-624), the Fish and wildlife Mitigation Report was prepared.

Description of Recommended Plan.—The recommended mitigation plan includes acquisition and development of about 6,000 acres of woodland-wetland habitat.

Views of States and Non-Federal Interests.—During formulation of the recommended plan presented in the District Engineer's Mitigation Report, the Obion Creek Watershed Conservancy District indicated that it would sponsor the construction of the channel improvement of Obion Creek as presently proposed and would also sponsor the provisions for the mitigation of damages as required in the proposed plan. The Kentucky Department of Fish and Wildlife Resources stated that if Congress sees fit to authorize the 6,000 acres of fish and wildlife mitigation lands and provide the Federal share of operation and maintenance funding, the Department would be willing to operate and maintain these lands for fish and wildlife purposes. During coordination of the draft mitigation report by the Office of the Chief of Engineers, the Kentucky Department of Fish and Wildlife Resources provided the following comments:

(a) The Department stated that funds for mitigation should not only be authorized but approved. The Department further stated that no construction activities should be initiated until funds are specifically approved. Authorization and subsequent funding needed for implementation are recognized as being the discretion of the Congress; however, present plans include the selection of all mitigation lands within the first year of construction in accordance with the agreement reached between the EPA and the Corps of Engineers. No land acquisition for mitigation purposes is contemplated within the first year of construction. Acquisition of the mitigation lands is planned to occur concurrently, as much as possible, with project construction.

(b) The Department expressed concern involving stream bendways and other reaches of natural channel which may be cut off by the improved channel. As requested by the Department, the preliminary design will be coordinated with EPA, the Fish and Wildlife Service and the Department for suggestions of modifications to make the construction plan more environmentally acceptable.

(c) The Department expressed concern with regard to including the 4,200 acres of woodland projected for conversion to croplands as part of the 6,000 acres of mitigation lands. The plans are to acquire a total of 6,000 acres of the highest quality woodland-wetland habitat remaining with the Obion Creek flood plain. The selection of the mitigation lands is planned to be a joint effort by the U.S. Fish and Wildlife Service, the Kentucky Department of Fish and Wildlife Resources, and the U.S. Army Corps of Engineers.

(d) The Department stated that it does not believe that the man-days use within the basin or the value of furs taken in the basin are accurately reflected in the Mitigation Plan. The amount of fish and wildlife oriented man-day usage and the value of furs expected to be taken within the Obion Creek Basin with and without project construction were based on the information presented in the U.S. Fish and Wildlife Service's report, dated January 1971.

Views of Federal and Regional Agencies.—

(a) *U.S. Environmental Protection Agency.*—Comments received from EPA on the draft copy of the Chief of Engineers Mitigation Report primarily concerned the EPA-Corps agreement reached June 28, 1978, during reconciliation of Section 404 matters on the West Kentucky Tributaries (Obion Creek) project. The first part of the agreement concerns the acquisition of 6,000 acres of fish and wildlife mitigation lands. Authorization for Federal acquisition of these lands and the subsequent appropriation of funds are subject to the discretion of the Congress. Concurrent funding for implementing the mitigation plan and the flood control plan is presently contemplated. The second part of the agreement involves the expected induced conversion of 4,200 acres of woodlands to croplands due to the project. The West Kentucky Tributaries Project is not dependent upon benefits to the 4,200 acres for its economic justification. The projected clearing can be prevented by including these woodlands in the acreage to be acquired for mitigation. The Corps of Engineers will rely heavily on the expertise of the U.S. Fish and Wildlife Service and the Kentucky Department of Fish and Wildlife Resources in the designation of areas to acquire for mitigation.

(b) *U.S. Department of the Interior.*—The Department of the Interior stated seven mitigation measures which should be employed with regard to the draft copy of the Chief of Engineers Mitigation Report. These are summarized as follows:

(1) Project-induced habitat losses.

(2) Habitat losses should be replaced on an acre-for-acre basis. The Corps' analysis indicated that 6,000 acres of mitigation lands, along with related development, would effectively offset the anticipated project induced fish and wildlife related recreational losses.

(3) Mitigation lands should be purchased concurrently with and in proportion to progress of project construction. Plans include concurrent implementation of the flood control and the mitigation features.

(4) No construction should commence until mitigation lands are identified and acquisition funds appropriated. Plans include joint selection (identification) of mitigation lands within

the first year of construction by the U.S. Fish and Wildlife Service, the Kentucky Department of Fish and Wildlife Resources, and the Corps of Engineers.

(5) Each departure of the newly constructed channel above the valley mouth (Mile 10) should be subject to review. As requested, the preliminary design will be coordinated with EPA, Kentucky Department of Fish and Wildlife Resources, and the U.S. Fish and Wildlife Service.

(6) Channel alignment should be changed below valley mouth to avoid wetlands. Changing the alignment to the north and west of its proposed alignment through the wetlands would create design problems due to the makeup of the soils. The planned alignment is located in a clay soil which has less scouring potential.

(7) Project maintenance should be limited to selective clearing and snagging, and stream banks should be allowed to revegetate. Channel excavation, woodland clearing and placement of excavated material will be confined to one side wherever engineeringly feasible; thus leaving desirable land features on the opposite side undisturbed.

Status of Environmental Impact Statement (EIS).—The Final EIS covering the authorized flood control project and the fish and wildlife mitigation plan was filed with the U.S. Environmental Protection Agency (EPA) on January 27, 1978. The EIS Supplement No. 1, covering wetlands information and project changes made to alleviate deposition of material into wetlands, was filed in final form with EPA on October 16, 1978.

Project Costs.—

Federal: $4,650,000.

Non-Federal: $251,000.

Description of Non-Federal Implementation Costs.—The Chief of Engineers' present policy on sharing the cost of fish and wildlife mitigation measures at local protection projects provides that the entire cost for mitigation construction, lands, and present worth of future operation and all maintenance (including any replacement costs) shall be shared in the same proportion as for the basic project. The operation, maintenance and management costs for mitigation, for the project life, would be shared in the same proportion. However, since the local interests will operate, maintain and manage the mitigation features, the Federal Government would provide, in a single capitalized payment, the present worth of the Federal share of these costs over the life of the project.

Benefit/Cost Ratio.—Not applicable to mitigation projects.

Remarks.—Preservation of significant portions of existing hardwood bottomlands and wetlands within the flood plain is a primary concern because these areas represent unique habitat within the Commonwealth of Kentucky and because they are an important part of the Mississippi Flyway between Canadian waterfowl production areas and southern wintering areas. Means are needed to preserve as much of the existing wildlife habitat as practicable within the region. Implementation of the mitigation plan will assure the continual preservation of at least 6,000 acres of existing hardwood bottomlands and wetlands.

In view of the concerns expressed about the adequacy of the mitigation acreage and the need for yearly acquisition of mitigation lands, the Committee has added two provisions to the authorizing language. The Secretary, in consultation with the Fish and Wildlife Service, is directed to acquire and preserve not less than 6,000 nor more than 9,000 acres of woodland for mitigation of project-induced woodland and wetland habitat losses. Also, the land is to be acquired as soon as possible from available funds, including the Environmental Protection and Mitigation Fund established in Section 1104.

MUDDY BOGGY CREEK, PARKER LAKE, OKLA.

Location.—The study area is the upper portion of the Muddy Boggy Creek basin in Coal, Pontotoc, and Atoka counties in Oklahoma.

Authority for Report.—Resolutions of the Senate Committee on Public Works and the House Committee on Public Works, adopted September 12, 1959, and February 24, 1960, respectively.

Description of Recommended Plan.—The recommended plan provides for the construction of a multiple-purpose impoundment on Muddy Boggy Creek. The lake would have a total storage capacity of 237,000 acre-feet. The plan includes the purchase of 1,050 acres of land in addition to that required for the dam and lake. These lands, together with 3,200 acres of project lands above the conservation pool, would be made available to the Oklahoma Department of Wildlife Conservation for wildlife management purposes to mitigate wildlife habitat losses resulting from the project.

Physical Data on Project Features.—The project would be located on Muddy Boggy Creek, Coal County, Oklahoma, about twenty miles east of Ada, Oklahoma.

Structural

The dam would be about 2,100 feet long with a maximum height of about 100 feet above the streambed. The lake created would have a total storage capacity of 237,000 acre-feet, consisting of 115,400 acre-feet for flood control; 114,650 acre-feet for water supply; and 6,950 acre-feet for sediment reserve.

Approximately 13,800 acres would be required. Three miles of county road, 3.1 miles of power lines, 4.9 miles of telephone line, and 100 graves would be relocated.

Nonstructural

Recommendations include wise use of the floodplain; preservation of features of historical, cultural archeological, scientific, ecological and esthetic importance; expansion and improvement of technical data collection programs; and continued study in a number of areas pertinent to planning for the development of water and related land resources.

Recreation

Basic facilities would be provided to insure the health and safety of visitors to the project. These would include barricades at six road ends, three turnarounds, three vault toilets, and trash receptables. An additional 500 acres would be acquired for future recreational use.

Water Use and Control

Municipal and industrial storage and features: Water supply storage of 114,650 acre-feet (42 mgd) will be provided which represents the maximum development of the site.

The lake will include 115,400 acre-feet storage for flood control and 6,950 acre-feet for sediment reserve.

Environmental features

The recommended project includes a wildlife mitigation plan consisting of the management of 3,200 acres of project land above the conservation pool and 1,050 acres of additional adjacent lands for wildlife purposes.

Views of States and Non-Federal Interests.—This project is listed as the number one priority in the category Continuation of Planning and Engineering Studies by the Oklahoma Water Resources Board. The Oklahoma Department of Wildlife Conservation recommends that the costs of operating and maintaining the mitigation lands be funded by the Federal Government.

Views of Federal and Regional Agencies.—The U.S. Fish and Wildlife Service agrees with the mitigation plan, which provides 4,250 acres of land for wildlife management purposes, but recommends Federal funding for operation and maintenance of those lands.

Status of Environmental Impact Statement (EIS).—The Final EIS was filed with EPA on March 10, 1981.

Project Costs.—

Federal: $40,200,000 ($35,600,000 of which will be reimbursed by non-Federal interests pursuant to the Water Supply Act of 1958 for costs of the project allocated to water supply).

Benefit/Cost Ratio.—1.2.

FORT GIBSON LAKE, OKLA.

Location.—The study area is located in east-central Oklahoma around the existing Fort Gibson Lake, which is about eight miles northeast of Muskogee, Oklahoma.

Authority for Report.—The Flood Control Acts of 1938 and 1941 authorized the existing Fort Gibson Project. It was determined that the Flood Control Act of 1941 did not specifically authorize the construction of additional power units. Therefore, the Chief of Engineers, by letter dated July 19, 1976, directed that a preauthorization survey scope report on the feasibility of constructing additional units be submitted to Congress.

Description of Recommended Plan.—The recommended plan calls for the installation of two additional 11,250-kw hydroelectric generating units similar to the four existing units, construction of fish shelters in the existing lake, preservation of cultural resources at archeological sites around the lake, and raising the top of the conservation pool two feet in the winter. The plan provides for construction and implementation of features which would preserve project archeological resources and fish habitat without restricting hydropower operations. The project shoreline would be surveyed, all archeological and historical sites would be evaluated, and a mitigation plan to preserve the data in these sites would be developed. A seasonal pool operation would be established to permit the top of the conservation pool to be raised from elevation 554.0 to elevation 556.0 in mid-December and lowered to elevation 554.0 in mid-February.

Although the 11,250-kw units were determined to provide the maximum benefits, recent changes in hydropower design concepts indicate that additional studies should be conducted during preconstruction planning to reaffirm the optimum size of units.

Views of States.—As of July 1982, the following State agencies have indicated concurrence in or had only minor comments on, the recommended plan: Oklahoma State Department of Health, the Oklahoma Natural Heritage Program, and the Oklahoma State Grant-in-Aid Clearinghouse.

In its comments on the draft report, the Oklahoma Department of Wildlife Conservation preferred Alternative 16, which included most of the environmental quality features of the Plan. The department also requested that the Tulsa District mitigate losses in man-days of fishing time in the tailwater because of a proposed decrease in generating time from 12.5 to 10 hours, and that fish and wildlife conservation be added as a project purpose.

Views of Federal and Regional Agencies.—The regional and national offices of the Federal Energy Regulatory Commission and the State office of the U.S. Soil Conservation Service concur with the recommended plan. The regional office of the Department of Housing and Urban Development had no comments on the draft Environmental Impact Statement. The U.S. Environmental Protection Agency had classified the Environmental Impact Statement as adequate and had no opposition to the proposed project.

The Southwestern Power Administration of the Department of Energy concurred with the installation of additional units.

The Office of Environmental Project Review of the U.S. Department of the Interior requested that the Tulsa District mitigate losses in man-days of fishing time in the tailwater because of a decrease in generating time and that fish and wildlife conservation be added as a project purpose.

Status of Environmental Impact Statement.—The Final Environmental Impact Statement was filed with the Environmental Protection Agency on October 14, 1983.

Project Costs.—

Federal: $23,200,000.

Non-Federal: $3,000.

Description of Non-Federal Implementation Costs.—The Oklahoma Department of Wildlife Conservation would be required to provide a contribution-in-kind, such as labor to construct and install, equal to 25 percent of the construction cost of the fish shelters.

Benefit/Cost Ratio.—3.2.

Remarks.—The Federal Energy Regulatory Commission and the Southwestern Power Administration stated that additional generating capacity is needed in Power Supply Area 33 which includes Fort Gibson Lake. A state power agency, the Grand River Dam Authority, agrees with the Federal agencies and desires to purchase the additional power.

Enhancements to terrestrial and aquatic habitats are needed to preserve and maintain existing fish and wildlife resources. The Secretary is directed to give this matter further consideration in connection with any recommendations made pursuant to subsection (b) of section 501.

HARRY S TRUMAN DAM AND RESERVOIR, MO.

Location.—The channel and overbank areas along the Osage River from the Harry S Truman Dam near Warsaw, Missouri, downstream for approximately 90 lake-miles to Bagnell Dam.

Authority for Report.—Public Law 83-780 authorized the flood control portion of the Truman Project, then known as the Kaysinger Bluff. Public Law 87-874 authorized hydropower and recreation and fish and wildlife as added project purposes. The Fish and Wildlife Coordination Act of 1958 provides authority for the Corps to recommend the authorization of land acquisition for fish and wildlife in conjunction with authorized water resourse projects.

Description of the Recommended Plan.—The report of the Chief of Engineers recommends fee acquisition of approximately 510 acres of land and wetlands immediately downstream of Harry S Truman Dam and Reservoir to be operated to mitigate the loss of wildlife resources resulting from hydropower operations of the upstream project. Mitigation acreage would be located behind right and left bank levees to be constructed under existing authority. A management plan would be developed in consultation with the U.S Fish and Wildlife Service and the Missouri Department of Conservation.

Views of States and Other Non-Federal Interests.—The Missouri Department of Natural Resources and the Missouri Department of Conservation maintain that management of the 510 acres proposed for acquisition and management will not adequately offset the identified losses to fish and wildlife associated with the hydropower operation of the upstream Federal project.

Views of Federal and Regional Agencies.—The U.S. Fish and Wildlife Service maintains that management of the 510 acres proposed for acquisition and management will not adequately offset the identified losses to fish and wildlife associated with the hydropower operation of the upstream Federal project. The Southwestern Power Administration of the Department of Energy, marketer of the power produced at the upstream project, opposes the allocation of the full cost of the acquisition and management to the hydropower purpose of the upstream project.

Status of Final Environmental Impact Statement.—Filed with the Environmental Protection Agency November 28, 1980.

Project Costs.—

Federal: $2,000,000.

Non-Federal: 0.

Remarks.—Hydropower operations at Harry S Truman Dam and Reservoir will affect overbank vegetation downstream. The portion of the affected acreage to be preserved structurally as part of the authorized project offers the opportunity, through management, to replace some of the wildlife resources that will be lost. The Government investment in the structures to preserve the present wildlife value of that acreage affords the opportunity to maximize the return of the structural investment by increasing the wildlife carrying capacity of the acreage through management.

In order to assure that fish and wildlife losses are adequately mitigated, the Secretary, in consultation with the State of Missouri and the U.S. Fish and Wildlife Service, is required to acquire lands—or designate project-use lands—for mitigation of such losses in addition to those lands recommended in the Chief of Engineers' report of December 21, 1981; except that the total acreage of lands acquired for mitigation shall not exceed 1,000 acres.

TRIMBLE WILDLIFE AREA, SMITHVILLE LAKE, LITTLE PLATTE RIVER, MO.

Location.—The 2,610-acre replacement site (Jackass Bend) lies in the Missouri River floodplain about 20 miles east of Kansas City, Missouri (1980 population 448,159).

Authority of Report.—Flood Control Act of 1965 (Public Law 89-298) and the Fish and Wildlife Coordination Act of 1958 (Public Law 85-624).

Description of the Recommended Plan.—The recommended plan is to acquire 2,610 acres of land located at Jackass Bend in Jackson, Ray, and Clay Counties, Missouri, for reconveyance to the State to replace the Trimble Wildlife Area. An additional lump sum payment would be made to the State to compensate for loses of capital improvements, hunting fees, and giant Canada goose production, and to reestablish the giant Canada goose flock at the replacement site.

Views of States and Other Non-Federal Interests.—The Missouri Department of Conservation participated in the study process and has given its strong endorsement to the replacement site at Jackass Bend. The Governor of Missouri endorsed the Trimble Wildlife Area relocation. Landowners at the replacement site oppose the recommended plan.

View of Federal and Regional Agencies.—The replacement plan is supported by the Regional Director, U.S. Fish and Wildlife Service.

Status of Final Environmental Impact Statement.—The Final Supplemental Environmental Impact Statement for the replacement of the Trimble Wildlife Area was filed with the Environmental Protection Agency on September 26, 1978.

Project Cost.—

Federal: $7,769,000.

Non-Federal: $0

Benefit/Cost Ratio.—Not applicable to mitigation projects.

Remarks.—Smithville Lake inundates a critical portion of the Trimble Wildlife Area, formerly operated by the Missouri Department of Conservation, making the area unsuited for the type of management the Department had established. Therefore, it is necessary to replace the area.

ST. LOUIS HARBOR, MO. AND ILL.

Location.—The area corresponds to the limits of the Port of Metropolitan St. Louis and is the main stem of the Mississippi River between river Mile 138.8 and 208.8.

Authority for Report.—Resolution adopted by the House Public Works Committee on June 23, 1964, and Resolution adopted by the Senate Committee on Public Works on May 26, 1971.

Description of Recommended Plan.—The recommended plan consists of two parts: (1) A structural solution to the most severe sedimentation problem in the study area at River Mile 182 on the Missouri bank and (2) Harbor improvements along the east bank of the Chain of Rocks Canal in Illinois.

The recommended solution to the sedimentation problem entails the construction of an "L" dike, or a similar structure, designed to provide reliable water transport access to the St. Louis municipal Dock area. This reliable water access would also facilitate redevelopment of approximately 300 acres by industries needing water transportation. Extensive model testing of the "L" dike, including other configurations, is needed before the project is initiated.

The recommended harbor improvements along the east bank of the Chain of Rocks Canal would provide docking facilities approximately one mile north of the existing harbor. This portion of the recommended plan consists of excavating the canal bank 210 feet for a length of 6,900 feet, thereby providing direct water access to approximately 1,080 acres of industrially zoned land. Construction would take place in two phases, the first occurring at the onset of plan implementation and the second phase projected to be needed about 10 years later. Each phase would involve excavating 3,450 feet of canal bank, resulting in a total harbor length of 6,900 feet.

The plan also includes environmental features, such as wildlife management practices, and incorporates a recreation component in the form of public scenic overlooks.

Physical Data on Project Features.—

Structural

(a) An "L" dike, extending 200 feet from bank, 2,800 feet long, to reduce primary sedimentation problems and facilitate redevelopment of 300 acres. (Note: To be extensively model-tested along with other configurations and alternatives.)

(b) Bank excavation and levee relocation, 210 feet wide, and 6,900 feet long to expedite interstate commerce by reducing transportation costs through facilitating development of 1,080 acres.

Recreational Features

Two scenic public overlooks constructed along east bank of canal.

Environmental Features

(a) Wildlife management on over 100 acres.

(b) Habitat improvement—bank grading and tree planting along slough portion of project area.

Views of States and Other Non-Federal Interests.—the Governors of Missouri and Illinois support the report's conclusions and recommendations.

Views of Federal and Regional Agencies.—No agencies have expressed opposition to the recommended plan.

Status of Environmental Impact Statement (EIS).—The Final EIS was filed with the Environmental Protection Agency on June 17, 1983.

Project Costs.—

Federal: $10,440,000.

Non-Federal: $17,680,000.

Non-Federal annual O&M Costs: $388,000.

Description of Non-Federal Implementation Costs.—The St. Louis Port Authority would pay one-half of the construction cost of the dike. The Tri-City Port District would be required to pay approximately one-half of fish and wildlife management features, channel excavation, levee relocation, and bank stabilization. The Tri-City Port District would be required to pay for 100 percent of the lands, road and railroad relocations, and construction of a public terminal.

Description of Non-Federal Operation and Maintenance Costs.—The St. Louis Port Authority would be responsible for one-half of maintenance dredging costs and replacement costs of the dike. The Tri-City Port District would be responsible for one-half of maintenance dredging costs and all replacement costs.

Benefit/Cost Ratio.—1.51.

Remarks.—The authorization provides for initial project construction to the full project dimensions, rather than phased excavation of the canal bank, so that the full benefits may be realized at the earliest possible date.

MISSOURI RIVER MITIGATION, MISSOURI, KANSAS, IOWA, AND NEBRASKA

Location.—Missouri River floodplain between Sioux City, Iowa, and St. Louis, Missouri.

Authority for Report.—There were seven Acts of Congress which authorized the construction, operation and maintenance of a navigation channel and bank stabilization works on the Missouri River. The most important of these Acts were passed in 1912, 1925, 1927, and 1945 (Public Laws 62-241, 68-585, 70-560, and 79-14, respectively). The latter three Acts amended the 1912 Act. The Fish and Wildlife Coordination Act of 1958 provides authority for the Corps to recommend measures to benefit fish and wildlife in conjunction with authorized water resource projects.

Description of the Recommended Plan.—The recommended plan does not address all the project-induced fish and wildlife losses, but includes only those which are justifiable in terms of tangible and intangible benefits and which maximize overall project benefits. The plan would restore and preserve 2,500 and 700 acres respectively of aquatic areas and 28,000 acres of timber-brush habitat, and develop 16,900 acres of public lands. An estimated 29,900 acres of mostly undeveloped land would need to be acquired to implement the plan.

Physical Data on Project Features.—

Structural

Sidechannels (chutes) resulting from the meandering of the river channel will be restored through dredging and notching of closure structures; new structures will be constructed to regulate flows through chutes; pumping systems will be installed where direct flow connections to the river are not practical.

Structures would be placed on public land or land to be acquired.

Nonstructural

Timbered acreage will be acquired and managed for wildlife. Existing unmanged state-Federal lands will be managed similarly.

Recreation

(1) Initial and ultimate facilities including campsites, boat launching sites, etc.: Minimal facilities for public health and safety will be provided on acquired tracts where deemed appropriate; to include roads, river access points, and boat ramps.

Views of States and Non-Federal Interests,—The proposed report of the Chief of Engineers is being reviewed by the affected States and other Federal agencies. Previously, the Governors and conservation departments of the States of Missouri and Kansas and the conservation department of the State of Nebraska have indicated support of the recommended plan. The State of Iowa expressed concern over the fish and wildlife impacts associated with the lowering grade of the Missouri River within the State. In general, landowners along the Missouri River have opposed the plan.

Views of Federal and Regional Agencies.—The recommended plan has been supported by the U.S. Fish and Wildlife Service.

Status of Environmental Impact Statement.—The Final Environmental Impact Statement was filed with the Environmental Protection Agency on December 23, 1982.

Project Costs.—

Federal: $48,400,000.

Non-Federal: 0.

Benefit/Cost Ratio.—Not applicable to mitigation projects.

Remarks.—The recommended plan does not address all of the mitigation needs associated with the Missouri River project. The Committee regards it as a first step, and has included language directing the Corps of Engineers to conduct further studies on the needs for mitigation and to report to Congress within three years on the results of the study and recommendations for additional mitigation measures.

DAVENPORT, IOWA (NAHANT MARSH)

Location.—Nahant March is a natural wetland located in the downstream end of the Federal project for the protection of the City of Davenport from floods on the Mississippi River. In 1980 the population of Davenport was 103,264.

Authority for Report.—1970 Flood Control Act, Public Law 91-611, dated December 31, 1970.

Description of Recommended Plan.—The recommended plan includes acquisition and preservation of approximately 163 acres of marshland, and construction of control structures to regulate water levels in the marsh and flows into the marsh.

Physical Data on Project Features.—

Lands and Relocations.—Acquisition of 163 acreas of marsh wetland.

Environmental Features.—Project features include two closure gates to regulate water flow through the marsh; 1,000 feet of ditch excavation to improve water flow; 2,000 feet of low levee to improve water retention; and a gravel parking area lot for 10 cars.

Views of States and other Non.Federal Interests.—The Iowa Natural Resources Council expressed support for the preservation of Nahant Marsh.

Views of Federal and Regional Agencies.—The U.S. Fish and Wildlife Service has expresed strong support for the preservation of Nahant Marsh.

Status of Final Environmental Impact Statement.—The Final Environmental Impact Statement on the flood protection project was submitted to the Environmental Protection Agency on March 13, 1978.

Project Costs.—

Federal: $387,000.

Non-Federal: $77,000.

Description of Non-Federal Implementation Costs.—Provide lands, easments, rights-of-way, and share mitigation costs.

Benefit/Cost Ratio.—Not applicable to mitigation projects.

Remarks.—The Davenport flood protection project consists of 5 miles of levees and floodwalls to provide protection against the 200-year flood. The project would adversely impact the Nahant Marsh, which is unique in that it provides the only wetland area within the urban community. It is presently used by groups for wildlife study.

HELENA HARBOR, PHILLIPS COUNTY, ARK.

Location.—East central Arkansas in Phillips County, just south of Helena, Arkansas, along the west bank of the Mississippi River.

Authority for Report.—Senate Public Works Committee resolution adopted May 19, 1972.

Description of Recommended Plan.—A slackwater harbor would be constructed consisting of a 9 by 300-foot channel 5.5 miles long at site II, providing 685 acres of fill available for development. Eight hundred twenty-five acres of bottomland hardwood would be purchased for mitigation purposes.

Physical Data on Project Features.—

Structural

A 9 by 300-foot navigation channel 5.5 miles long will provide 685 acres of flood-free fill for harbor development purposes. The proposed navigation channel and landfill will require the purchase of 1,835 acres of right-of-way. No relocation of existing facilities or utilities will be required. The project will provide water access to proposed industrial sites and will allow for safe operation of existing and projected increases in vessel traffic.

Recreation

Initial and ultimate recreation facilities will consist of an overlook park to provide the populace with an aesthetically pleasing view of the Mississippi River.

Environmental Features

The recommended plan includes the acquisition and management of an estimated 825 acres of bottomland hardwoods for mitigation of project-induced fish and wildlife damages.

Views of States and Non-Federal Interests.—States generally concurred in the recommended plan.

Views of Federal and Regional Agencies.—The Department of the Interior expressed opposition to the plan because of the amount of mitigation land recommended for authorization.

Status of Environmental Impact Statement (EIS).—The Final EIS was filed with the Environmental Protection Agency on December 14, 1979.

Project Costs.—

Federal: $37,100,000.

Non-Federal: $18,400,000.

Description of Non-Federal Implementation Costs.—Non-Federal interests are required to furnish all lands, easements and rights-of-way, provide all necessary retaining dikes and appurtenances for retention of dredged material, provide berthing and fleeting areas, provide additional public terminal transfer facilities and public access, accomplish all alterations and relocations required for the construction works, provide a cash contribution for the general navigation facilities equal to 100 percent of the final construction cost allocated to land enhancement, provide a cash or in-kind contribution equal to 50% of the first cost for recreation facilities and share in the migitation costs in the same proportion as in the project cost.

Description of Non-Federal O&M Costs.—

Maintain retaining dikes and appurtenances for the retention of dredged material.

Maintain berthing and fleeting areas for the full length of industrial fill.

Operate, maintain and replace mitigation and recreation features.

Benefit/Cost Ratio.—1.4.

Remarks.—The authorization provides for intial project construction to the full project dimensions, rather than in stages, so that the full benefits may be realized at the earliest possible date. Furthermore, the Committee recognizes that even though a 9-foot channel is presently maintained on the Mississippi River, the project has an authorized depth of 12 feet. Barges with a 12-foot draft are used in the Mississippi except during periods of low water. Therefore, the authorized depth for improvements at Helena Harbor is also 12 feet. The Secretary, in consultation with the Fish and Wildlife Service, shall evaluate the adequacy of the recommended measures for mitigation of losses of wildlife habitat and shall within one year after the date of enactment of this bill, transmit to the House Committee on Public Works and Transportation and the Senate Committee on Environment and Public Works a report of such evaluation, along with recommendations for additional lands which the Secretary determines to be necessary and appropriate to mitigate the adverse effects of the project on fish and wildlife habitat. The project authorization includes acquisition of such additional lands as may be recommended by the Secretary in such report. Except for funds from the Environmental Protection and Mitigation Fund, no funds may be appropriated for acquisition of land for, or actual construction of, the project until such activity is approved by resolutions by the two Committees.

WHITE RIVER NAVIGATION TO BATESVILLE, ARK.

Location.—The White River area is located in east central Arkansas and covers the lower 300 miles of the White River.

Authority for Report.—Senate Committee on Public Works Resolution adopted May 25, 1967.

Description of Recommended Plan.—Channel deepening and widening to achieve a 200-foot-wide channel and a 9-foot depth 95 percent of the time up to Newport, Arkansas (mile 254). The channel would be achieved by dredging, dikes and bank paving. Mitigation of wildlife habitat losses will consist of about 1,865 acres bottomland hardwoods and reconsideration of aquatic management measures.

Physical Data on Project Features.—

Structural

The recommended plan consists of dredging, dikes, and bank paving to provide a 200-foot by 9-foot channel 95 percent of the time up to Newport, Arkansas. This would provide a safe, navigable chanel to meet future barge transportation needs. The navigation feature will require the acquisition of 993 acres of right-of-way, the relocation of three pipelines, and alteration of one railroad bridge.

Recreation

The recommended plan consists of parkland, scenic overlooks and campground areas. The recommended recreation features will provide recreation benefits for camping, sightseeing and picnicking.

Environmental Features

The recommended plan includes the acquisition in fee title of up to 1,865 acres of bottomland forest habitat to offset terrestrial habitat losses.

Views of States and Other Non-Federal Interests.—Response of the Governor to the Office of the Chief of Engineers stated support for the project. The Missouri Pacific Railroad has expressed opposition to the project in numerous letters. The Arkansas Waterways Commission transmitted a letter stating its intent to furnish the local cooperation requirement.

Views of Federal and Regional Agencies.—The Fish and Wildlife Service opposes the project unless the final plans include provision of 1,865 acres of mitigation lands, aquatic mitigation, compatibility with refuge lands and no cutoffs. The Service objects to an authorization which would allow discretionary modifications by the Chief of Engineers.

Status of Environmental Impact Statement (EIS).—The Final EIS was filed with EPA on January 16, 1981.

Project Costs.—

Federal: $22,900,000.

Non-Federal: $6,000,000.

Non-Federal Annual O&M Costs: $53,600.

Description of Non-Federal Implementation Costs.—Non-Federal interests will: (1) provide all lands, easements and rights-of-way required for construction and maintenance of the recommended improvement; (2) accomplish alterations and relocations to existing facilities (roadways, buildings, utilities, sewers, etc.) and share in alterations or replacement costs of obstructive railroad bridges in accordance with Sec. 6, Bridge Alteration Act of June 21, 1940, as amended; (3) pay at least 50 percent of the first costs associated with the development of recreation facilities; (4) pay for a portion of fish and wildlife mitigation features.

Description of Non-Federal O&M Cost.—Non-Federal interests must maintain the disposal areas during construction and during the first five years of maintenance, must operate and maintain the park/scenic overlook and campground areas, and must manage that part of mitigation lands and facilities which will be turned over to the State.

Benefit/Cost Ratio.—1.2.

Remarks.—In order to adequately mitigate the effect of the project on fish and wildlife resources, the Committee directs the Secretary to:

(a) acquire 1,865 acres of habitat mitigation lands;

(b) evaluate, in consultation with the Fish and Wildlife Service the effect of the project on the Fat Pocketbook Pearly Mussel;

(c) evaluate, in consultation with the Fish and Wildlife Service, the feasibility of including weirs in tributary areas to benefit aquatic habitat and include them in the project as he determines appropriate.

Within one year of enactment of this Act, the Secretary shall submit a report of the evaluation required in (b) and (c) above to the House Committee on Public Works and Transportation and the Senate Committee on Environment and Public Works, along with recommendations for additional measures to mitigate adverse effects of the project on the Fat Pocketbook Pearly Mussel and for weirs. The project authorization includes such additional measures, if approved by the two Committees. Except for funds from the Environmental Protection and Mitigation Fund, no funds may be appropriated for acquisition of land for, or actual construction of, the project until such activity is approved by resolutions of the two Committees. The Committee emphasizes that this authorization shall not be construed to effect the requirements of P.L. 89-669, as amended, and that if applicable, the Secretary must obtain a permit from the Fish and Wildlife Service, taking into consideration the compatability of the project with the purposes for which the White River National Wildlife Refuge was established.

The authorizing language further provides that the Federal share of the cost of relocating pipelines, electric transmission lines or cables, communications lines or cables, and related facilities should be 50 percent, provided such relocation is necessary for the project and provided further that the pipeline, cable, line and related facilities require authorization under Section 10 of the River and Harbor Act of March 3, 1899. The non-Federal share of such relocation cost shall be paid by the facility's owner. Any project requirement for lands, easements, and rights-of-way, including land required for the disposal of dredged material, shall be at full Federal expense.

TRINITY RIVER, TEX.

Location.—The area consists of the Trinity River floodplain, deltaic marsh, and bay from river mile 45, just upstream of Liberty, Texas, to the Houston Ship Channel in Galveston Bay.

Authority for Report.—Public Law 85-624, The Fish and Wildlife Coordination Act of 1958.

Description of Recommended Plan.—The recommended plan to mitigate losses caused by the Multiple-Purpose Channel to river mile 45, a feature of the Trinity River Project, includes acquisition of 10,546 acres of good quality wildlife habitat in the Redmond and Big Caney Creek drainages of the project study area. The plan also includes initial fencing and posting to control access and an operation plan which would involve control of grazing and public access and management of a public hunting program.

Environmental Features.—Mitigation on separable lands, as approved by the Board of Engineers for Rivers and Harbors, includes acquisition and low intensity management of 10,546 acres in the following habitat types:

	Acres
Bottomland hardwoods	7,950
Cypress/Tupelo	1,000
Disturbed/Grassland	880
Upland wooded	716

Views of States and Other Non-Federal interests.—By letter dated January 4, 1982, the Texas Parks and Wildlife Department (TPWD) concurred in the Corps recommendation and expressed a willingness and desire to manage the area. TPWD did, however, request reimbursement of funds for operation and maintenance. During public review, the Texas Department of Water Resources expressed opposition to mitigation in general. Advocates of the Multiple-Purpose Channel generally oppose the mitigation plan. Environmental groups generally oppose the channel plan but support the terrestrial mitigation plan.

Views of Federal and Regional Agencies.—The Fish and Wildlife Service concurred that the recommended mitigation plan should adequately offset losses to terrestrial habitats and recommended its implementation in the event that the project proceeds to construction. The Service further recommended that the TPWD manage the area and that O&M funding be provided by the Corps.

Status of Environmental Impact Statement.—The Final EIS on the Trinity River Project was filed with the Environmental Protection Agency on October 30, 1981.

Project Costs.—

Federal: $9,310,000.

Non-Federal: $339,000.

Description of Non-Federal Implementation Costs.—Non-Federal costs of the recommended mitigation plan are incurred in the same proportion as the overall costs of other project components. The non-Federal share, including land and relocation costs, is 3.87 percent while the Federal share is 96.13 percent.

Benefit/Cost Ratio.—Non applicable to mitigation projects.

Remarks.—Post authorization investigations by the U.S. Fish and Wildlife Service (USFWS), the Texas Parks and Wildlife Department (TPWD), and the Corps of Engineers indicate that significant habitat losses would occur with construction of the Trinity River Project. Losses include the direct loss of 5,033 acres and altered hydrology on about 57,600 acres of significant wetlands.

The Secretary is required to transmit, within one year of enactment of the bill, his recommendations regarding the authorized plan to the House Committee on Public Works and Transportation and the Senate Committee on Environment and Public Works. Such recommendations shall include any additional mitigation measures the Secretary may find appropriate. The project authorization includes such additional measures if approved by the two Committees. Except for funds from the Environmental Protection and Mitigation Fund, no funds may be appropriated for acquisition of land for, or actual construction of, the plan until such activity is approved by resolutions of the two Committees.

COOPER LAKE AND CHANNELS, TEX.

Location.—The area for the Cooper lake and Channels project is the Sulphur River Basin, Texas. Cooper Lake is to be located near Commerce, Texas, in the upper basin, while the proposed mitigation area is located in the mid-basin on the upper end of Wright Patman Lake.

Authority for Report.—Public Law 85-624, The Fish and Wildlife Coordination Act of 1958.

Description of Recommended Plan.—The recommended plan includes fee acquisition, development, and management for wildlife of approximately 25,500 acres of land (White Oak Bayou area) currently under flowage easement at Wright Patman lake. Habitat improvements would include fencing along the boundary line, development of three 0.5-acre water holes per section, clearing and thinning of three 1.0-acre tracts per section in bottomland hardwood habitats, vegetative plantings on 50 acres per section in open lands, and development of two ground denning areas per section in semiwooded and open land habitats.

Physical Data on Project Feature.—Mitigation on separable lands would include acquisition, development, and management of 25,500 acres of flowage easement lands at Wright Patman Lake for fish and wildlife purposes.

Mitigation on project lands would include management of about 6,500 acres (2,000 acres of that on an interim basis) for fish and wildlife purposes. A "tailing-off" of the bottom 5 percent of the designated flood pool would provide mitigating flows of 50, 45, or 30 cfs when such waters are available. This feature does not require Congressional authorization.

Views of State and Other Non-Federal Interests.—The State of Texas generally concurs with the recommended plan but questioned whether all the recommended acquisition is needed and expressed reservations about being able to fully fund the non-Federal share of O&M costs.

Views of Federal and Regional Agencies.—The Fish and Wildlife Service recommended that the Corps of Engineers proceed with the terrestrial habitat mitigation plan as presented in the Draft Supplemental EIS and described above. Addionally, the Service recommended staged filling of Cooper Lake and a release schedule for mitigating aquatic (stream) habitat losses. The Environmental Protection Agency concurs with the plan.

Status of Environmental Impact Statement (EIS).—A Final EIS for the Cooper Lake and Channels project was filed with the Council on Environmental Quality on June 24, 1977. On December 8, 1978, the U.S. District Court for the Eastern District of Texas issued a Memorandum Opinion detailing five inadequacies of the Final EIS and permanently enjoined further construction pending correction of the inadequacies. A Final Supplemental EIS correcting the inadequacies of the Final EIS was filed with the Environmental Protection Agency (EPA) on March 27, 1981. The Record of Decision was signed on June 11, 1981. On July 22, 1981, a motion was filed to have the permanent injunction dissolved. On December 30, 1982, however, the Court denied the request, finding the EIS still to be deficient.

Project Costs.—

Federal: $7,570,000.

Non-Federal: $6,190,000.

Description of Non-Federal Implementation Costs.—Non-Federal costs of the recommended mitigation plan are incurred in the same proportion as the overall costs of other project components. The non-Federal share, including land and relocation costs, is 45 percent.

Benefit/Cost Ratio.—Not applicable to mitigation projects.

Remarks.—Post authorization investigations by the U.S. Fish and Wildlife Service, the Texas Parks and Wildlife Department, and the Corps of Engineers indicate that significant habitat losses (loss or degradation of about 25,400 acres) would occur with construction of the Cooper Lake Project. Those evaluations and the subject report identify a plan to mitigate those habitat losses, which involves land acquisitions.

Although construction of the project is presently enjoined, the Committee feels that authorization of the mitigation plan is appropriate at this time, in order to avoid unnecessary delay once the injunction is lifted.

SACRAMENTO RIVER BANK PROTECTION, CALIFORNIA

Location.—Sacramento River in the vicinity of Phase I of the Sacramento River Bank Protection Project on Sacramento River Flood Control Project levees upstream from Sacramento.

Authority for Report.—Public Law 85-624, Fish and Wildlife Coordination Act of 1958.

Description of Recommended Plan.—Acquisition of 668 acres of lands and developing wildlife habitat thereon for mitigation.

Views of States and Other Non-Federal Interests.—The State of California concurred in the proposed fish and wildlife program of the acquisition and development of 668 acres of mitigation land. The State agreed to acquire land interests, operate and maintain the completed mitigation work, and pay 37 percent of the total mitigation costs. These are the same requirements and percentage payments as for the overall project.

Views of Federal and Regional Agencies.—The Secretary of the Interior, the Secretary of Commerce and the Regional Administrator of EPA concurred in the proposed program.

Status of Final Environmental Impact Statement.—The Final EIS on the overall project was filed on June 15, 1973. The EIS described the need for remedial mitigation measures.

Project Costs.—

Federal: $1,867,000.

Non-Federal: $1,194,000.

Description of Non-Federal Implementation Costs.—Non-Federal interests would acquire all lands, easements and rights-of-way, and provide a cash contribution.

Benefit/Cost Ratio.—Not applicable to mitigation projects.

Remarks.—The first phase of the Sacramento River Bank protection project was authorized by the Flood Control Act of 1960 and was completed in 1974. Wildlife mitigation lands acquisition was not authorized for the first phase of the project. The First Phase work resulted in wildlife losses, which should be mitigated by acquiring and developing lands for wildlife habitat.

SWEETWATER RIVER, CALIF.

Location.—The cities of Chula Vista and National City, California, and adjacent unincorporated areas in San Diego County, about 8 miles south of the City of San Diego.

Authority for Report.—Public Law 85-624, The Fish and Wildlife Coordination Act of 1958, as amended; Section 7 of the Endangered Species Act of 1973, as amended; and Section 4 of the Flood Control Act of 1944, as amended.

Description of Recommended Plan.—Acquisition and limited development of 188 acres of marshland habitat (44 acres for mitigation and 144 acres for preservation); bicycle, horseback riding and pedestrian trails; rest areas; and a beach park.

Physical Data on Project Features.—

Recreation

2.7-mile bicycle trail along the north side of the flood control channel.

2.5-mile horseback riding trail along the south side of the flood control channel.

0.7-mile Sweetwater Marsh bicycle and nature trail adjacent to Sweetwater Marsh and Gunpowder Point.

Horseback riding rest area at the western end of the horseback riding trail.

Gunpowder Point bicycle rest area at Gunpowder Point Park.

Beach Park at the western end of the bicycle trail.

Environmental Features

Acquisition of 188 acres of the Sweetwater-Paradise Marsh. A buffer zone at least 100 feet wide will surround the Marsh. Bird-viewing blinds will be installed at selected prominent view points in the buffer zone.

Views of States and Other Non-Federal Interests.—The State of California supports the recommended plan, as indicated in the most recent letters from the Department of Fish and Game, the Department of Transportation, the Coastal Commission, the Department of Parks and Recreation, Office of Historic Preservation, and the Resources Agency Final State views will be requested during the review of the proposed Chief of Engineers' Report. The San Diego County Board of Supervisors expressed its intent to provide the necessary items of local cooperation. San Diego County, the Cities of Chula Vista and National City, and a land owner have expressed intent to donate the land recommended for mitigation and preservation in order to hasten implementation of the project.

Views of Federal and Regional Agencies.—The Fish and Wildlife Service supports the recommended plan. Final Federal agency views will be requested during the review of the proposed Chief of Engineers' Report.

Status of Final Environmental Impact Statement.—To be filed with EPA during the review of the proposed Chief of Engineers' Report.

Project Costs.—

Federal: $3,477,000.

Non-Federal: $1,443,000.

Description of Non-Federal Implementation Costs.—Non-Federal fish and wildlife mitigation costs would be in the same proportion as the non-Federal share of the costs of the flood control purpose of the basic project. Recreation costs would equal 50 percent of the recreation implementation cost, including the cost of lands, relocations and any additional contributions necessary to bring the non-Federal share to at least 50 percent.

Benefit/Cost Ratio.—Not applicable to mitigation projects.

Remarks.—The Sweetwater River flood control project was authorized by the 1968 Flood Control Act to provide protection against flooding along the river's urbanized lower 3.2 miles. During the course of the project's detailed engineering work, numerous Federal, State and local agencies and members of the public expressed concern over possible impacts on the Light-Footed Clapper Rail and California Least Tern bird species. Mitigation for adverse effects on the marshland and means to preserve remaining significant habitat had not been included in the authorized project. It was also determined that the project provided an opportunity to develop a westward extension of San Diego's proposed Sweetwater Park and provide a recreational corridor between recreational facilities from San Diego Bay to the Cleveland National Forest. The Committee feels this mitigation project is appropriate to protect environmental values.

LAVA FLOW, CONTROL, HAWAII

Location.—The area is the elongated zone extending from an area near the summit of Mauna Loa to Hilo, Hawaii.

Authority for Report.—Senate Committee on Public Works resolution adopted November 14, 1975.

Description of Recommended Plan.—The recommended action is an amergency reaction plan to be carried out only if a volcanic eruption occurs and the consequent flows threaten lives and property. The plan, which would become an integral part of the State's emergency plan, provides for construction of earthen diversion barriers to direct lava flows into a flow corridor and away from inhabited areas. The estimated maximum total length of the diversion barriers is about nine miles.

Physical Data on Project Features.—

Structural

Barrier requirements would be constructed on an "as needed" basis. Depending on the flow location, the barriers' combined total length could range from one mile to approximately 9 miles, and their height would range from 15 to about 20 feet. The physical output would be the control of lava flow damage to the urban area in Hilo.

Nonstructural (land requirement)

Based on a maximum condition, a 23-mile cleared flow path and flowage easement would be required. Additionally, six areas have been identified as staging areas to support construction operations. The maximum area to be impacted by barrier construction and related activities would be about 2,500 acres.

Views of State and Other Non-Federal Interests.—The State Department of Planning and Economic Development (DPED) stated that the recommended plan would be the preferred alternative from the coastal zone management standpoint; however, as a Federal action directly affecting Hawaii's coastal zone, a determination of consistency in accordance with 15 CFR, Part 930, is required. The Federal Consistency Determination was completed, and the DPED concurred that the activity is consistent with the relevant provisions of the management program.

Views of Federal and Regional Agencies.—Six agencies responded to the proposed Chief of Engineers' report and Final EIS. No objections were expressed.

Status of Final Environmental Impact Statement (EIS).—The Final EIS was filed on March 20, 1981.

Project Costs.—

Federal: $3,949,000.

Non-Federal: $377,000.

Description of Non-Federal Implementation Costs.—Non-Federal costs are related to local interests providing lands, easements, and rights-of-way for project implementation.

Benefit/Cost Ratio.—8.5.

CITY WATERWAY, TACOMA, WASH.

Location.—City Waterway, one of eight waterways situated at the head of Commencement Bay, is located on the southwestern side of Tacoma Harbor, within the City of Tacoma, Washington.

Authority for Report.—The report was prepared under authority of Section 216 of the 1970 River and Harbor Act.

Description of Recommended Plan.—The recommended plan entail the following waterward relocation of the present navigation channel project boundaries (bulkhead and peirhead lines):

a. Western boundary moved 190 feet eastward from the entrance of the project to 730 feet south of the centerline of 11th Street Bridge.

b. Western boundary moved 100 feet eastward from the Union Pacific Railroad Bridge (15th Street) south 1,720 feet, thence less than 100 feet eastward south to the south limit of the project such that a minimum channel width of 100 feet is maintained with approximately a 130-foot-wide turning basin at the end of the project.

c. Eastern boundary moved 100 feet westward from Union Pacific Railroad Bridge (15th Street) south, to end of the project.

Views of States and Other Non-Federal Interests.—During public review of the draft report distributed in August of 1981, three Washington State agencies commented upon the project modification proposal. The Department of Natural Resources endorsed the proposal. The two other agencies expressed no comment in their correspondence. The City of Tacoma, the project's local sponsor, endorsed the recommended plan. The Port of Tacoma, the Tacoma Chamber of Commerce, and numerous waterway property owners and shippers also endorsed the project modification. There is no known opposition to the recommended plan.

Views of Federal and Regional Agencies.—The Fish and Wildlife Service, expressed satisfaction with the recommended plan.

Status of Final Environmental Impact Statement (EIS).—The preparation of EIS was not required for this project modification. The recommended plan will have no significant adverse impact on the environment. Accordingly, an environmental assessment and finding of no significant impact has been prepared and is included in the report.

Project costs.—

Federal: $5,000.

Non-Federal: 0.

Benefit/Cost Ratio.—Not applicable.

Remarks.—The City of Tacoma requested that the Corps of Engineers study the feasibility of modifying the present navigation channel in City Waterway to enhance recreation boating opportunities and marina development consistent with the City's $26 million comprehensive waterway redevelopment plan. The City's redevelopment program permits a mixture of public and private water related and water dependent uses within the waterway. Due to changed economic conditions within the Waterway, the full project dimensions are not required with current and future waterway uses. Project modification was principally requested to partially remove a Corps of Engineers performance bond requirement associated with private development encroaching into the authorized project. This bonding requirement poses certain financial restrictions on waterway developers and constrains the City in the efforts to attract such development.

The Committee finds that, due to the limited scope of the project, review and approval of the Secretary's recommendations by the House Committee on Public Works and Transportation and the Senate Committee on Environment and Public Works pursuant to Section 501(b) of this Act is not warranted.

MCNARY LOCK AND DAM, WASHINGTON AND OREGON

Location.—At McNary Lock and Dam on the Columbia River, two miles east of Umatilla, Oregon.

Authority for Report.—Section 101 of the Water Resources Development Act of 1976, Public Law 94-587.

Description of Recommended Plan.—Construction of a second powerhouse at McNary Dam, with provisions for an additional future installation when such need is demonstrated. The plan also includes fish passage devices, a fish hatchery, beautification of existing levees, improved public-use facilities, and features for protection of fish and wildlife resources.

Physical Data on Project Features.—

Structural

The second powerhouse would consist of six units having a total generating (peaking) capacity of 742 megawatts. The hydraulic capacity would be 150,000 cfs. The average annual energy production from this powerhouse is estimated to be 7,902,000 megawatt-hours. The new hydraulic capacity at McNary, 360,000 cfs, would attain approximate hydraulic balance with the existing John Day project (360,000 cfs) and could be operated at 8 hours per day and 40 hours per week for peak power generation. There will be no change in the storage capacity of the reservoir.

The second powerhouse would be connected to the existing powerplant with a composite dam consisting of a concrete non-overflow section and a rockfill section with a concrete cutoff wall. A section of concrete non-overflow dam and an earthfill embankment dam would be constructed at the south end of the second powerhouse so as to allow for future powerhouse expansion without a need for an upstream cofferdam. A cofferdam is required at the confluence of the new tailrace with the old to allow for the excavation of the tailrace area.

Construction of the second powerhouse would require the relocation of approximately 0.6 mile of UPRR spur line track located on the left abutment. The power transmission line from the existing powerhouse to the BPA substation must also be relocated. This project will be totally constructed on existing project land; therefore, no land acquisitions are necessary.

Recreation

Recreation facilities attributed to the construction of the second powerhouse involve:

(1) Levee access and beautification in the Pasco-Kennewick-Richland area will include shelters, paths, grass and shrub plantings.

(2) New visitor facilities will be constructed at the dam. These will include displays, educational exhibits (on power production control and fish facilities), fish viewing area, and replacement of the existing visitor area along the tailrace.

(3) Some excavated material will be placed upstream of McNary Beach Park to form a breakwater jetty to prevent beach erosion. Excavated material will also be used to construct islands upstream from the project to be used by boaters and wildlife.

(4) The existing boat launching facilities just upstream from the dam on the south shore will be relocated upstream of the port facilities. This improves boating safety by removing boats from the powerhouse forebay area and by reducing the need for boats to cross barge traffic patterns.

Water Use and Control

With the addition of the second powerhouse, having a hydraulic capacity of 150,000 cfs, the total capacity of both powerhouses is 380,000 cfs. With this increased capacity, the forebay fluctuations will become more rapid, but the amount of fluctuation will not exceed the existing maximum. Tailwater fluctuations and velocities will increase but would not produce excessively adverse conditions for fish migration or navigation. The maximum tailwater velocity will be 6 feet per second.

Environmental Features

Fish mitigation will include fish facilities, both temporary and permanent, to allow the passage of both adult and juvenile fish at the dam. Holding facilities for migrant juveniles for downstream transportation will also be provided. Two shoals areas at the mouth of the Walla Walla River will be isolated by dikes (subimpoundments) to minimize water level fluctuations. These subimpoundments will provide stabilized areas to maintain suitable habitat for waterfowl and the warm-water fishery. To compensate for fish losses at the powerhouse, a new hatchery will be built. The location and size of this hatchery will be determined later. Revetments will be placed at selected areas downstream from the dam to reduce erosion of goose nesting and wildlife habitat areas resulting from increased discharges and fluctuations due to second powerhouse operation.

Views of States and Other Non-Federal Interests.—The State of Oregon supported recommendations for the second powerhouse.

The State of Washington does not oppose construction of the second powerhouse if all fishery resources will be protected from damage. The State also stated the level of fish and wildlife "enhancement" was not acceptable.

The State of Idaho recommended a greater degree of fish propagation to compensate for past encroachments on the anadromous runs. The State wants fish compensation to take place in the headwater spawning and rearing areas where the fish were formerly abundant.

Views of Federal and Regional Agencies.—The Department of the Interior expressed concern that the level of fish and wildlife compensation recommended for the second powerhouse was not sufficient.

The Environmental Protection Agency expressed concern with the Section 404 evaluation for disposal of fill at the project. The Chief of Engineers clarified the disposal situation, conforming the Corps' intent to avoid unnecessary in-water disposal.

The Federal Energy Regulatory Commission noted the project would be economically feasible and usable on the system load and would not conflict with other actions over which the Commission has responsibilities.

Status of Environmental Impact Statement (EIS).—The Final EIS was filed with the Council on Environmental Quality on February 10, 1977. A Supplemental Information Report is included as an appendix in the Phase I General Design Memorandum dated October 1979.

Project cost.—

Federal: $600,000,000.

Non-Federal: 0.[1]

[1] Non-Federal interests to reimburse 100 percent of project costs from project revenues.

Benefit/Cost Ratio.—1.4.

Remarks.—McNary Lock and Dam was authorized by the River and Harbor Act approved March 2, 1945. That project was placed in operation in 1953 with an installed generating capacity of 1,127 MW. The recommended modification would increase the generating capacity to 1,869 MW and would improve the levee appearance and public use facilities at the project. The Secretary further study the fish and wildlife compensation measures associated with the project, and undertake necessary measures to insure their adequacy.

BETHEL BANK STABILIZATION, ALASKA

Location.—The area is the Kuskokwim River Valley in southwestern Alaska, particularly the City of Bethel, located on the north bank of Kuskokwim River, 86 miles upstream from Kuskokwim Bay, 400 miles west of Anchorage.

Authority for Report.—Resolution adopted September 9, 1977 by the Senate Committee on Environment and Public Works.

Description of Recommended Plan.—The recommended plan consists of rock riprap bank protection from Lousetown Slough to just downstream of the Standard Oil tank farm (5,000 feet). It extends from the upper portion of the bank in the wave and active ice zone to the river bottom with vegetation above the wave zone.

Physical Data on Project Features.—The recommended plan calls for placing 190,000 cubic yards of rock and 29,000 cubic yards of sand upon 595,000 square feet of filter fabric. Excavation of 120,000 cubic yards is required to obtain the proper slopes for laying the rock. A 555,000 square-foot area will be seeded above the rock to help prevent erosion. The rock will be placed from the active wave zone to the thalweg of the river. The erosion rate would be reduced about 15 feet per year. Over 115 homes and businesses would be saved during the project life.

Views of States and Other Non-Federal Interests.—The State has indicated its support for the project. The City has expressed its intent to provide all the necessary items of local cooperation. The environmental impacts are minor, and all non-Federal interests support the project.

Views of Federal and Regional Agencies.—No agencies have expressed opposition to the recommended plan.

Status of Environmental Impact Statement (EIS).—The Draft EIS was filed in April of 1981.

Project costs.—

Federal: $13,780,000.

Non-Federal: $920,000.

Description of Non-Federal Implementation Costs.—Non-Federal interests will provide necessary lands, easements and rights-of-ways and the cost of stockpiled maintenance rock.

Benefit/Cost Ratio.—1.2.

Remarks.—Problems relate to the severe erosion of the riverbank at Bethel and the impact on the surrounding 48 villages served by this transportation center.

It is the understanding of the Committee that the City of Bethel has undertaken a combined bank stabilization/port development project in which a piling seawall is being constructed along approximately one-half of the proposed project site. Over $7,000,000 has been dedicated to the project by the City thus far. The project authorized in the bill will allow the Corps to provide riprap protection along the remainder of the affected bank and provide toe protection to the piling bulkhead.

KODIAK HARBOR, ALASKA

Location.—The City of Kodiak is situated on the northeast shore of Kodiak Island in south-central Alaska, about 260 miles southwest of Anchorage, Alaska.

Authority for Report.—A resolution adopted December 4, 1961 by the Senate Committee on Public Works.

Description of Recommended Plan.—Improvements would consist of a rubble mound breakwater and a 20-foot deep entrance channel to serve a 45-acre mooring area to be completed by local interests.

Physical Data on Project Features.—The harbor would be protected by a 1,900-foot long rubblemound breakwater across the mouth of Dog Bay. Access to the harbor would be provided by a channel 930 feet long, 150 feet wide and 20 feet deep. The project would provide protection for 474 commercial fishing boats in a 45-acre moorage area. An additional 45 acres of protected water would be available to accommodate expected growth of the fishing fleet. The project would reduce boat damage caused by the present extreme crowding of vessels in one of the nation's most productive fishing ports. Also, existing industrial dock facilities could be more efficiently used, since boats would not tie up these docks unnecessarily. In addition, the new facilities would enable the United States fishing industry to increase the harvest of bottomfish, which are presently taken by foreign fleets within the 200-mile Coastal Management Zone.

Views of States and Other Non-Federal Interests.—The State of Alaska has concurred in the findings, conclusions, and recommendations of the report. The City of Kodiak has consistently voiced strong support for improved small boat harbor facilities. In 1981 the City and State began construction of temporary mooring facilities in Dog Bay as an interim measure to reduce crowding until the Federal project is constructed. Other non-Federal interests have generally supported development of a harbor at Dog Bay.

Views of Federal and Regional Agencies.—No agencies have expressed opposition to the recommended plan.

Status of Environmental Impact Statement (EIS).—The Final EIS was filed on January 26, 1979.

Project costs.—

Federal: $13,440,000.

Non-Federal: $120,000.

Description of Non-Federal Implementation Costs.—Provision of necessary lands, easements, rights-of-way, and relocations for construction.

Benefit/Cost Ratio.—2.0.

ST. PAUL ISLAND, ALASKA

Location.—St. Paul Island is the northernmost island of the Pribilofs, located in the southeastern Bering Sea, approximately 800 air miles west-southwest of Anchorage, Alaska. The City of St. Paul is located on Village Cove on the southern tip of the Island.

Authority for Report.—A resolution by the Committee on Public Works of the United States Senate, adopted January 20, 1967.

Description of Recommended Plan.—The recommended plan consists of a 12-acre harbor area in Village Cove protected by a single rubble-mound breakwater.

Physical Data on Project Features.—A 12-acre mooring area at 18 feet MLLW, including fixed moorings and associated maneuvering areas, would provide 19 to 20 transient commercial fishing vessels access to essential marine services and permanent moorings for 20 to 30 smaller local craft. This mooring area would be sheltered from wave attack by a single rubble-mound, breakwater 1,600 feet in length, constructed of 221,600 cubic yards of quarry rock. Dredging volume for the mooring basin would total 186,900 cubic yards and would be disposed in the core of the breakwater or in an open water site in Village Cove northwest of the project. Quarry rock for breakwater construction would be obtained from an inland site on St. Paul Island.

Views of States and Other Non-Federal Interests.—The City of St. Paul indicated its willingness and ability to fulfill all local cooperation requirements in a resolution of the City Council. The State of Alaska expressed its intent to provide non-Federal funding costs.

Views of Federal and Regional Agencies.—No agencies have expressed opposition to the recommended plan.

Status of Environmental Impact Statement.—The Final EIS was filed on June 6, 1983.

Project cost.—

Federal: $11,986,000.

Non-Federal: $11,280,600.

Non-Federal annual O&M costs: $33,800.

Description of Non-Federal Implementation Costs.—Non-Federal costs include the cost of dredging the mooring areas and the cost of constructing the mooring facilities.

Description of Non-Federal O&M Costs.—Non-Federal O&M costs include the cost of maintenance dredging in the mooring area at estimated ten-year intervals.

Benefit/Cost Ratio.—1.59.

Remarks.—The project will maintain the existing cultural and environmental resources of St. Paul Island and the existing Bering Sea; reduce operating costs of U.S. commercial fishing, subsistence fishing and other vessels operating near St. Paul Island in the eastern Bering Sea; increase the harvest of marine resources by U.S. vessels in the Eastern Bering Sea; and reduce the cost of ocean freight service to St. Paul Island.

Cost-sharing for the project is required to be in accordance with Section 105 of this Act.

Subsection (b) of Section 501 provides that, for any project authorized in Title V, where a final report of the Chief of Engineers has not been completed on the date of enactment of the bill, the Secretary shall, within one year of the date of enactment, submit a copy of any required final environmental impact statement to the House Committee on Public Works and Transportation and the Senate Committee on Environment and Public Works. Any recommendations of the Secretary with respect to the project are also to be submitted. No appropriation may be made for the acquisition of land for, or the actual construction of, the project unless such acquisition and construction are approved by resolutions of the two Committees. This prohibition does not apply to funds appropriated to the Environmental Protection and Mitigation Fund pursuant to Section 1104. Monies in this fund may be expended to mitigate losses to fish and wildlife production and habitat prior to adoption of the Committee resolutions.

Subsection (c) of Section 501 makes inapplicable any provision in any of the reports designated in Title V which recommend that a State contribute in cash 5 percent of the construction costs allocated to non-vendible project purposes and 10 percent of the costs allocated to vendible project purposes. Such contributions were included in some Corps of Engineers reports on water resources projects during the preceding Administration. The Committee has adopted new cost-sharing policies for some types of projects, and reaffirmed existing policies for others. The recommendations for 5 and 10 percent contributions have not been adopted. This subsection is to remove any doubt as to whether the 5 and 10 percent contribution requirements are applicable.

SECTION 502

This section authorizes the Secretary to undertake a demonstration project for the removal of silt and aquatic growth from Albert Lea Lake, Freeborn County, Minnesota, at an estimated cost of $4,270,000.

In recent years there has been considerable concern over the eutrophic condition of Albert Lea Lake. The advanced state of eutrophication in the Lake has been evidenced by several algae blooms, scum, noxious odors, and a decline in the quality and quantity of fish in the lake. This has resulted in drastically reduced recreational use of the lake, as well as a possible unsafe condition for public health.

Initial studies indicate that it would be economically feasible to dredge at least the major portion of Albert Lea Lake from the Shellrock Channel to the outlet of the Lake. This portion of the Lake comprises approximately 910 acres, of which 610 might be dredged and the remaining 300 acres might be used as a deposit area for the dredged material.

The Secretary of the Army will report to the Administrator of the Environmental Protection Agency the plans for and the results of the project together with such recommendation as may be necessary to assist the Administrator in carrying out programs elsewhere for freshwater lakes under Section 314 of the Federal Water Pollution Control Act. In this way the information and experience developed at Albert Lea Lake will prove valuable in improving the environmental quality of other lakes with similar problems around the Nation.

SECTION 503

This section directs the Secretary to carry out a water resources project for the development, operation and maintenance of a recreation and greenbelt area on and along the Des Moines River, Iowa, between the point at which the Des Moines River is intersected by U.S. Highway 20 to the point downstream where the Des Moines River is intersected by relocated U.S. Highway 92.

This project is to include such features as recreation facilities, streambank stabilization structures, tree plantings, trails, vegetation, wildlife protection and development, and the prohibition or limitation of the killing or capturing of wildlife.

In carrying out the project, the Secretary is to consult with an advisory committee. The advisory committee is to be constituted as follows: five persons appointed by the Governor of Iowa; two persons appointed by their respective boards of supervisors to represent Mahaska, Marion, Warren, Jasper, Polk, Dallas, Boone and Webster Counties; one person appointed by the Mayor of the City of Des Moines and one additional person appointed by the mayor of each other incorporated municipality within whose boundaries a portion of such recreation area lies; and three employees or officials of the Corps of Engineers designated by the Secretary.

Each member of the advisory committee shall serve at the pleasure of the authority which appointed that member and shall, except for the three persons designated by the Secretary, serve without compensation or reimbursement by the Federal government for any expenses incurred for serving on the committee. The committee may elect such officers and spokesmen as it deems appropriate and may appoint whatever ad hoc committees of interested citizens it deems desirable to aid in providing the committee's advice to the Secretary.

There is authorized to be appropriated $6,000,000 to carry out the Section.

This section will provide for the coordination and enhancement of several existing water and conservation projects in Central Iowa. By joining completed flood control projects at Red Rock and Saylorville with some levee and bank erosion projects into a single unit, it will be possible for the Corps of Engineers to administer, operate and maintain these Corps projects more easily and efficiently, and also make these government assets more valuable and useful for greenbelt and recreational purposes. Providing an advisory committee structure will assist the Corps in maintaining productive relationships with local governments and the residents of the area.

SECTION 504

This section authorizes the project for beach erosion control, navigation and storm protection from Hereford Inlet to the Delaware Bay entrance to the Cape May Canal, New Jersey.

Location.—The southernmost 16 miles of New Jersey's Atlantic Coast.

Authority.—A Senate Public Works Committee Resolution adopted October 3, 1962; and Section 2 of the 1930 River and Harbor Act, approved July 3, 1930.

Existing Projects.—The existing Federal project consists of navigation channels at Hereford Inlet and Cape May Inlet, bulkheads along Five Mile Beach and North Wildwood, and groins at Cape May City.

Need.—Prevention of loss of beaches and of the migration and shoaling of the channel through Hereford Inlet.

Recommended Plan of Improvement.—Hereford Inlet and Five Mile Beach—jetties and deposition basin, navigation channel, beach and sand bill, bulkhead and backfill, and groins.

Cape May Inlet to Lower Township—Breakwater with weir, deposition basin, and fill, seawall rehabilitation, and groins.

Cape May Point—Sand fill, groins, and dikes.

Project Cost.—

Federal: $40,000,000.

Non-Federal: $13,800,000.

Benefit/Cost Ratios.—Hereford Inlet and Five Mile Beach, 2.6; Cape May Inlet to Lower Township, 3.4; and Cape May Point 1.2.

Local Cooperation.—Non-Federal interests will contribute in cash the computed percentage of the non-Federal first costs of any construction and annual maintenance of jetties, breakwaters, recreational navigation channels and deposition basins and periodic nourishment and dredging to be accomplished by the Corps of Engineers, provide without cost to the United States all lands, easements, and rights-of-way required for construction and subsequent maintenance to be accomplished by the Federal Government; hold and save the United States free from all claims for damages that may result from construction and maintenance of the improvements; and assure continued public ownership of public shores and continued availability for public use of the public and private shores upon which the amount of Federal participation is based.

Remarks.—This project meets a serious need for preventive measures against continuing erosion of the beaches, tidal flooding due to tidal storms, and improvement of navigation conditions.

The Secretary may construct the beach erosion control, navigation, or storm protection features of the project separately or in combination with the other features. The non-Federal share for any feature which is separately constructed shall be the non-Federal share for that particular feature as set forth in the designated report of the Chief of Engineers.

SECTION 505

This section authorizes the project for beach erosion control, and storm protection for Barnegat Inlet to Longport, New Jersey.

Location.—The middle of the Atlantic Coast of New Jersey.

Authority.—Senate Public Works Committee Resolution, adopted October 3, 1962; Public Law 87-874, approved October 23, 1962; and Section 2 of the River and Harbor Act, approved July 3, 1930.

Existing Projects.—A Federal navigation channel at Barnegat Inlet with jetties; and a Federal navigation channel at Absecon Inlet; shore protection measures, including groins, bulkheads, reventments, and beach fill by Federal and non-Federal interests along the coast.

Needs.—Preventive measure against continuing erosion of the beaches and tidal flooding due to tidal storms, as well as improvement of navigation conditions.

Recommended Plan of Improvement.—Barnegat Inlet—jetty and navigation channel.

Long Beach Island—Beach fill, groins, jetty maintenance, and periodic nourishment.

Brigantine Island—Beach fill, groins, and periodic nourishment.

Absecon Island—Sandfill, periodic nourishment, breakwater and deposition basin, as well as completion of authorized project.

Project Costs.—

Federal: $35,800,000.

Non-Federal: $43,700,000.

Non-Federal Responsibility.—Non-Federal interests will provide without cost to the United States all lands, easements, and rights-of-way necessary for construction and subsequent maintenance of the project, including necessary retaining dikes, bulkheads, and embankments for disposal of dredged material, or the costs of such retaining works; hold and save the United States free from damages due to construction and subsequent maintenance work; provide a cash contribution for the navigation facilities equal to 50 percent of the final construction cost allocated to recreational navigation; and provide a cash contribution for beach erosion control, based on a percentage of construction costs.

Environmental Impact of Proposed Project.—The proposed project will provide enhanced recreation and navigation conditions. It may also cause some benthic disruption.

Status of Environmental Impact Statement.—The Revised Draft Environmental Impact Statement was submitted to the Council on Environmental Quality on April 21, 1975.

Benefit/Cost Ratio.—2.0.

Remarks.—The Secretary may construct the beach erosion control, navigation, and storm protection features separately or in combination with the other features. As in the Hereford Inlet project, the local cooperation is that required for the particular feature being constructed, and the agreement to provide the required local cooperation need only relate to the portion being constructed.

The Committee notes that the proposed modifications to the existing Barnegat Inlet navigation project are basically corrective measures required to have the project function as initially intended, and, therefore, can be implemented within the purview of the original project authority.

Authorization of the existing Federal navigation project at Barnegat Inlet was provided by Section 1 of the River and Harbor Act of August 30, 1935, and subsequently modified by Section 1 of the River and Harbor Act of August 26, 1937 and Section 1 of the River and Harbor Act of July 24, 1946. Construction of the project was initiated in 1938 and was essentially completed in 1940. The project consists of two converging stone jetties, a channel 8 feet deep through the inlet and 10 feet deep through the outer bar, a channel of suitable hydraulic characteristics extending in a northwesterly direction from the gorge in the inlet to Oyster Creek channel and through the latter channel to deep water in the bay, a sand dike from the southeast side of Sunset Shoal to the bay shore of Barnegat, and the maintenance of a channel 8 feet deep and 200 feet wide to connect Barnegat Light Harbor with the main inlet channel.

In the first few years following construction of the project, the jetty and bar channels improved in both depth and alignment. However, this beneficial trend soon reversed, and the channels became shoaled. Since 1954, when attempts to dredge a straight channel were unsuccessful, both the depth and the alignment of the inlet channel have become extremely unstable. Although considerable maintenance dredging has been performed, the maintenance program has been only partially successful in maintaining a 6-foot-deep channel, and completely unsuccessful in maintaining a stable alignment through the inlet and outer bar.

The Corps of Engineers has determined that the failure of the existing project to provide a suitable, safe, and stable channel is attributed to two factors. First, the alignment of the south jetty, which resulted in the arrowhead shape to the entrance, does not properly confine and train the flow to any specific channel. Second, sand brought to the entrance by ocean currents and wave action tends to accumulate in the entrance area. The key to providing a stable channel of adequate depth and improving navigation safety and reliability is the construction of a new south jetty parallel to the existing north jetty. Without this structural modification, the problems of instability and hazardous navigation due to wave activity and channel shoaling would continue to exist despite the most resolute maintenance dredging efforts.

SECTION 506

Hobart, Indiana is a town with a population of approximately 20,000 people. In the center of the town is Lake George, which is used as a boating, fishing, and swimming area. Over the years the lake's condition has deteriorated because of the sediment brought to it from sources outside Lake George.

This section directs the Secretary to carry out a demonstration project for the removal of silt, aquatic growth, and other material in Lake George and in that part of Deep River upstream of the lake through Lake Station, and to construct silt traps or other devices to prevent and abate the deposit of sediment in Lake George and that part of Deep River. The cleanup and remedial measures are estimated to cost $4,360,000.

Plans for and the results of the demonstration project are to be coordinated with the Administrator of the Environmental Protection Agency together with such recommendations as may be helpful to assist the Administrator in carrying out the programs elsewhere for freshwater lakes under Section 314 of the Federal Water Pollution Control Act. In this way the information and experience developed at Lake George will prove valuable in improving the environmental quality of other lakes with similar problems around the Nation.

SECTION 507

This section authorizes and directs the Secretary to establish and conduct for a period of five years at multiple sites on the Ohio River and its tributaries a streambank erosion prevention and control demonstration program. In carrying out the program, the Secretary will—

(1) identify streambank erosion measures likely to provide the highest degree of protection technically and economically feasible for both high and low flow conditions;

(2) conduct necessary research on the interaction of erodible boundaries with flowing water in order to more accurately predict the behavior and optimum design of protective works;

(3) define and test optimum designs of bed slopes and grade control structures for a wide range of soil and flow conditions;

(4) develop, field test, and evaluate new erosion protection products or methods, including but not limited to earth or rock-filled grids, reinforced earth bulkheads, stabilized mattings for vegetation seeding, and patterned schemes using manufactured blocks in loose, matted, or interconnected configurations;

(5) develop and evaluate engineering techniques to control overbank drainage;

(6) identify and quantify economic losses occurring along the Ohio River and its tributaries due to streambank erosion; and

(7) construct demonstration projects, including bank protection works.

The Secretary is required to evaluate the environmental impacts of each demonstration project and streambank measure, with a view toward minimizing environmental losses.

Demonstration projects are to be undertaken to reflect a variety of geographical and environmental conditions, including naturally occurring erosion problems and erosion caused or incurred by manmade structures or activities. At a minimum, demonstration projects shall be conducted at sites on that reach of the Ohio River between the Captain Anthony Meldahl Locks and Dam and the McAlpine Locks and Dam; and on the Licking River.

There is authorized to be appropriated not to exceed $25,000,000 to carry out the Section.

The Secretary is required to report to Congress each year on work undertaken pursuant to Section 507.

The Committee intends that projects to be constructed under authority of this section shall be located in the vicinity of California, Kentucky, on the Ohio River and Bellevue, Kentucky, on the Licking River, in addition to other sites on these Rivers.

SECTION 508

This section authorizes the Secretary to construct, at full Federal expense, an elevated walkway on the Bird Island Pier, located at the confluence of the Niagara River and Lake Erie, Buffalo, New York, in order to provide safe pedestrian access and prevent the loss of life, at an estimated cost of $4,500,000. The Bird Island Pier is located in the City of Buffalo. The Pier provides a calm water navigation channel parallel to the fast moving waters of the Niagara River. The Pier was originally built by New York State in the 19th Century as part of the Erie Canal. The Federal Government acquired the Pier pursuant to authority contained in the River and Harbor Act of 1905, and the Corps of Engineers has been responsible for its maintenance since then.

The Pier is frequently overtopped by waters flowing from the Black Rock Canal into the Niagara River. It was built low so that the existing docks in the Black Rock Harbor would not be damaged by high water levels. When the lake levels are high, or there are southwest or westerly winds, the water will literally pile up in the Canal and eventually cascade over the Bird Island Pier into the Niagara River. The waters can overtop the Pier with as little as ten minutes warning. This is particularly dangerous, because the Pier is a favorite fishing area of local residents. The Coast Guard estimates that there are four pier-related deaths each year and that it makes approximately 12 rescues during a typical year. Section 508 provides the necessary authority to provide facilities to prevent loss of life at the pier.

SECTION 509

This section authorizes and directs the Secretary to implement, at full Federal cost, snagging and clearing and channel rectification measures along the Passaic and Pequannock Rivers, New Jersey, from Beatties Dam in Little Falls on the Passaic River upstream to the confluence of the Pequannock River at Two Bridges along the Pequannock River and upstream to Pompton Plains feeder dam and along tributaries of such rivers (including Singac Brook and Weasel Brook) including the modification of such structures, floodproofing and flood warning measures as determined necessary by the Chief of Engineers at an estimated cost of $25 million. None of the work authorized by this Section is to affect the analysis of costs and benefits for projects presently being studied by the Secretary.

The Passaic and the Pequannock River Basins have long been vulnerable to severe flooding and have been the subject of intensive studies by the Corps of Engineers with a view to developing a long-term comprehensive solution to these problems. Section 509 authorizes interim flood control measures to provide relief pending completion of these studies.

SECTION 510

This section authorizes the Secretary to replace the dike at the Small Boat Harbor, Buffalo Harbor, New York, at an estimated cost of $6,140,000. The Small Boat Harbor was constructed in the early 1950s with an inner breakwater structure to protect the boat slips and mooring area from waves overtopping the south harbor breakwater. The core of the dike is made of slag and although concrete slabs placed in a random fashion were added to armor the exterior side during the mid-1970s, deterioration of the dike has occurred as a result of several severe winters, adverse wave action, and increasing wave run-up on the concrete slabs on top of the dike. Replacement of the dike is necessary. This replacement will include realignment of the dogleg extension, which will allow for future expansion of useable space within the Small Boat Harbor for docks and mooring. A detached breakwater would also be included.

SECTION 511

This section authorizes and directs the Secretary to take such measures as may be necessary to correct erosion problems along the banks of the Red Lake River, Minnesota, approximately one and one-half miles West of Gentilly, Minnesota, adequate to protect the nearby highway and bridge at an estimated cost of $300,000.

SECTION 512

This section authorizes the Secretary to perform intermittent dredging and such other work as may be required on the Yazoo River in Mississippi, from Greenwood south, to remove natural shoals as they occur, at an average annual cost of $200,000. Non-Federal interests are required to provide without cost to the United States all lands, easements and rights-of-way required for dredging and disposal of dredged materials; accomplish without cost to the United States such alterations, relocations and rearrangement of facilities as required for dredging and disposal of dredged materials; and hold and save the United States free from damages due to the dredging and disposal of dredged materials. The dredging work in this area of the Yazoo River is needed to facilitate commerce, particularly during periods of low water.

SECTION 513

This section authorizes and directs the Secretary to undertake a demonstration project for the removal of silt and stumps from Greenwood Lake and Belcher Creek, New Jersey, at full Federal expense and at an estimated cost of $10 million. The Secretary is directed to report to the Administrator of the Environmental protection Agency the plans for and results of the project together with such recommendations as the Secretary determines necessary to carry out the program for freshwater lakes under Section 314 of the Federal Water Pollution Control Act.

A serious siltation problem exists at Greenwood Lake. During storm events, soils are eroded and transported to the Lake. The result of this process is the filling of the Lake and the degradation of its water quality and aesthetics. In addition, tree stumps in the Lake impede boating and pose a physical obstruction to the use of dredging equipment. The demonstration project authorized by Section 513 will alleviate the problems in Greenwood Lake and Belcher Creek and provide useful information to the Administrator of the Environmental Protection Agency for use in connection with the Clean Lakes Program under Section 314 of the Federal Water Pollution Control Act.

SECTION 514

This section directs the Secretary to take such actions as may be necessary to remedy slope failures and erosion problems along the banks of the Coosa River, Alabama, as are necessary to protect the Fort Toulouse National Historic Landmark, and Taskigi Indian Mound in Elmore County, Alabama, at an estimated cost of $29 million. It also directs the Secretary to take such actions along the banks of the Black Warrior River, Alabama, in order to protect the Mound State Monument National Historic Landmark near Moundville, Alabama, at an estimated cost of $4,620,000. These actions are to be coordinated with the Secretary of the Interior and the State of Alabama.

Prior to initiation of construction of these projects, non-Federal interests must agree to provide without cost to the United States all lands, easements and rights-of-way necessary for construction and operation of the project, hold and save the United States free from damage due to construction operation and maintenance of the project, accomplish without cost to the United States all modifications or relocations of existing sewerage and drainage facilities, buildings, utilities, and highways made necessary by construction of the project, and maintain and operate all features of the project after completion in accordance with regulations prescribed by the Secretary.

Fort Toulouse and the Taskigi Indian Mound are being threatened by a serious erosion problem which exists along the shores of the Coosa River. As much as thirty feet of the bank in some areas has sloughed in recent years. Some artifacts in the vicinity of the bank are being lost as a result of the continuing bank deterioration. The partially restored Fort Toulouse is approximately 40 feet from the shores of the bank and will undoubtedly be destroyed if corrective action is not taken in the near future.

The Corps of Engineers has investigated a variety of solutions to the problem and has identified two as being the most promising. One consists of a cut-off about 9,600 feet long which would isolate the unstable slope in the bend of the river. Some of the excavated material would be used to fill the present river channel. The other potential solution consists of a curved 4,500-foot long cut-off within the inside of the bend opposite the unstable slope. With either approach, it would also be necessary to include protective works along the reaches of the Coosa River upstream and downstream of Fort Toulouse.

The Mound State Monument has been designated as a National Historic Landmark, and is one of the most significant archeological sites in that region of the country. It is being threatened by serious erosion of the Black Warrior River banks. This Section will provide for protection against this erosion so that the site may be preserved.

SECTION 515

This section authorizes the Secretary to undertake such measures as may be necessary to maintain the Larkspur Ferry Channel in Larkspur, California, at a depth sufficient for ferryboat service between Marin County and San Francisco, California, at an estimated cost of $500,000. The Larkspur Ferry Channel requires deepening in order to ensure the continued safe and efficient operation of the ferryboat service between Marin County and San Francisco. This Section authorizes appropriate measures to ensure that this important service may continue uninterrupted.

SECTION 516

This section authorizes the Secretary to perform dredging in Weeks Bay, Vermilion Bay, and Southwest Pass, Louisiana, to a depth of 13 feet as necessary to provide a water access route to the Gulf of Mexico from the Port of Iberia Commercial Canal through Weeks Bay, Vermilion Bay, and Southwest Pass, at an estimated cost of $3 million. The provision of a direct water access route from the Port of Iberia to the Gulf of Mexico will provide substantial navigation benefits. The north-south navigation routes from the Intracoastal Canal to the Gulf of Mexico in the Acadiana Region are very limited. The new channel would provide much more efficient transportation to the important oil and gas areas in the Gulf.

SECTION 517

This section authorizes the Secretary to undertake in La Conner, Washington, such bank erosion control measures along the Swinomish Channel as the Secretary determines necessary to prevent damage to structures in the La Conner Historical District, at an estimated cost of $1,177,000. The community of La Conner is located approximately seven miles north of Seattle, Washington, on the eastern side of the Swinomish Channel, near its southern end. The

Swinomish Channel, a Federally-maintained waterway eleven miles long, connects Skagit Bay on the south with Padilla Bay on the north. Bank erosion has exposed pilings which support historic buildings in the La Conner Historic District. Foundations beneath sidewalks and First Street are in danger of failure. Studies completed by the Corps of Engineers in 1976 in response to a request from the mayor of the town resulted in the conclusion that damages were occurring from a combination of the effects of dredging and natural wave and tidal action. Additional studies completed in 1978 were undertaken and the Corps performed work to prevent further damage to First Street and adjacent sidewalks under Section 14 of the Flood Control Act of 1946.

Repairs completed by the Corps consisted of grouting voids beneath the sidewalk and placement of gravel fill and riprap along about 160 feet of existing channel bank. Repairs completed by the Town of La Conner consisted of covering the exposed portion of the 290 piles most severely damaged with a concrete jacket, construction of a wood bulkhead and placing of riprap at selected locations to control bank erosion. This work was designed to be an interim measure pending permanent repairs. Section 517 provides the necessary authority for the permanent repairs to be accomplished.

SECTION 518

This section authorizes a program for mitigation of wildlife losses attributable to construction of the Tennessee-Tombigbee Waterway in Alabama and Mississippi. The Secretary is authorized to acquire from willing sellers 67,000 acres of land for mitigation of wildlife losses. These lands are to be in addition to, and not in lieu of, lands currently owned by the United States in the project area which are designated as wildlife mitigation lands for the project. Of the lands acquired under this Section, not less than 20,000 acres shall be acquired in the area of the Mobile-Tensaw River Delta, Alabama, and not less than 25,000 shall be acquired in the areas of the Pascagoula River, the Pearl River and the Mississippi River Delta, in Mississippi. Other lands acquired under this Section may be acquired anywhere in the States of Alabama and Mississippi. The Secretary is to select lands to be acquired in consultation with appropriate state and Federal officials. Emphasis is to be placed on acquisition of lands which are predominately flood plain forest. The States of Alabama and Mississippi are to provide for the management for wildlife purposes of lands acquired under this Section and lands currently owned by the United States in the project area, which are designated as wildlife mitigation lands for the project. The States are to be reimbursed for the management and initial development costs which are specified in a plan for management of mitigation lands to be developed by the Secretary, the United States Fish and Wildlife Service and the States of Alabama and Mississippi.

SECTION 519

This section authorizes and directs the Secretary to undertake a demonstration project for the removal of silt and aquatic growth from the southern portions of Sauk Lake in the vicinity of Sauk

Center, Stearns County, Minnesota, at full Federal expense and at an estimated cost of $1,400,000. The Secretary is to report to the Administrator of the Environmental Protection Agency the plans for and results of this project together with such recommendations as the Secretary determines necessary to carry out the program for freshwater lakes under Section 314 of the Federal Water Pollution Control Act. The Committee directs the Secretary to use dredged material from this project as cover on the Sauk Centre Landfill, to the maximum extent feasible.

TITLE VI

WATER RESOURCES STUDIES

SECTION 601

This section authorizes and directs the Secretary to prepare and submit to Congress feasibility reports on the following water resources projects: Illinois River in the vicinity of Hardin, Illinois to recommend remedial measures for bank stabilization; Kinnickinnic River, Milwaukee County, Wisconsin, for flood control and allied purposes.

SECTION 602

The Secretary of the Army, acting through the Chief of Engineers, has been conducting a study of the feasibility of providing flood protection along the West Branch of the Susquehanna River for the Borough of Milton, Pennsylvania. Section 602 directs the Secretary to undertake the advanced engineering and design for a flood control project at Milton, including the preparation of final construction plans.

SECTION 603

This section authorizes and directs the Secretary to make studies in cooperation with the governments of Guam, American Samoa, the Trust Territory of the Pacific Islands, and the Commonwealth of the Northern Mariana Islands for the purpose of providing plans for the development, utilization, and conservation of water and related land resources. The studies are to include appropriate consideration of the needs for flood protection, wise use of flood plain lands, navigation facilities, hydroelectric power generation, regional water supply and waste water management facilities systems. The studies are also to address recreation, water quality, fish and wildlife conservation and enhancement, environmental enhancement, and economic development.

SECTION 604

Section 604 directs the Secretary to make a study of the possibility of rehabilitating the hydroelectric potential at former industrial sites, millraces, and similar types of facilities already constructed, and of the possibility of converting such sites for use as new, small hydroelectric projects. The Secretary shall also provide technical assistance to local public agencies and cooperatives in any such rehabilitation at sites studied or qualified for study under this section. In each of the fiscal years ending September 30, 1984, 1985, and 1986, $5 million is authorized to be appropriated to carry out this program.

This section utilizes the expertise of the Corps of Engineers in assisting local interests in studying the feasibility of hydroelectric power potential at existing local sites. The program would build on, and is a logical extension of, the study by the Corps of Engineers of its own projects pursuant to section 167 of the Water Resources Development Act of 1976.

The Committee intends that studies would be carried out only at sites where the potential production appears to justify the expense of the study. Generally, it would not be feasible to study a site that would produce less than 100 kilowatts of electricity. However, in New England, due to the nature of the terrain, the rainfall, and the velocity of the streams, it would be feasible to study a site with a potential capacity of at least 40 kilowatts.

SECTION 605

This section directs the Secretary to investigate and study the feasibility of utilizing the capabilities of the Corps of Engineers to conserve wildlife and wildlife habitat where such wildlife is indigenous to the United States, its possessions, or its territories. The study is to include the use of engineering or construction capabilities to create alternative habitats, or to improve, enlarge, develop, or otherwise beneficially modify existing habitats of such wildlife. The study is to be conducted in consultation with the Director of the Fish and Wildlife Service of the Department of the Interior and the Director of the National Marine Fisheries Service of the Department of Commerce and the Administrator of the Environmental Protection Agency and is to be transmitted to Congress with findings, conclusions and recommendations.

Section 605 also authorizes the Corps of Engineers to conduct demonstration projects of alternative or beneficially modified habitats for wildlife. Not to exceed $10,000,000 is authorized to be appropriated to carry out these demonstration projects. One of the demonstration projects shall be the construction of a reef for fish habitat in Lake Erie in the vicinity of Buffalo, New York. Many techniques have traditionally been used for fish and wildlife mitigation and enhancement, including land acquisition, intensified management practices, special project operation and maintenance techniques, and establishment of wetland areas. The Committee feels that there is considerable merit in studying and demonstrating a broad range of engineering and construction practices to preserve and create habitat and to enhance fish and wildlife resources. This could include such measures, for example, as artificial impoundments, creation of wetland areas, creation of habitats and nesting areas, creation of reefs for fish habitat, modified operation of projects, and the like. The study authorized by this section, in conjunction with the demonstration of various measures, will provide the needed information on the feasibility and desirability of implementing such a mitigation and enhancement program on a general basis.

SECTION 606

This section authorizes the Secretary, in consultation with appropriate Federal, State, and local agencies, to make a nationwide study and appraisal of the nature and scope of the Nation's flood problems and the effectiveness of existing programs in reducing losses from floods. A report with recommendations is to be submitted to Congress within three years. In the conduct of the study particular attention is to be given to flood problems existing in highly developed urban watersheds and their relationships to local storm drainage and pollution control measures.

The water resources needs of the Nation, and the priorities in meeting these needs, are constantly changing. In the future, for example, the major needs to be met will likely include water supply, water transportation and energy development. Another area of increasing need is urban flood control, which in the past has been substantially neglected. The revitalization and productivity of many areas, particularly in the older Northeast, will be dependent in large part on protection from floods and stormwater runoff, as well as adequate provisions of water supply. In order to adequately judge future needs, and the proper Federal interest in fulfilling those needs, an appraisal of the Nation's flood problems, stormwater runoff and flood control programs is urgently needed. This will provide the information necessary to determine what should be done to meet water resources development needs and how to achieve the optimum yield from our Nation's water resources.

SECTION 607

Section 142 of the Water Resources Development Act of 1976 authorized the Secretary of the Army, acting through the Chief of Engineers, to investigate the flood and related problems of those lands lying below the plane of mean higher water along the San Francisco Bay shoreline of San Mateo, Santa Clara, Alameda, Napa, Sonoma and Solano Counties to the confluence of the Sacramento and San Joaquin Rivers, with a view toward determining the feasibility of and the Federal interest in providing protection against tidal and fluvial flooding. Section 607 adds San Francisco and Marin Counties, which are also susceptible to flooding problems, to this study.

SECTION 608

Section 608 directs the Secretary, in consultation with appropriate Federal, State and local agencies, to determine the extent of shoreline erosion damage in the United States causally related to the regulation of the waters of Lake Superior by the International Joint Commission, United States and Canada (IJC), in response to an emergency application by the United States made on January 26, 1973. The Secretary is to report to the Congress, not later than the end of the second year following the first appropriation to carry out this survey, the results of such survey, together with recommendations of a methodology for, and a determination of the cost of, indemnifying individual shoreline property owners, and a recommended schedule for such indemnification.

Because of the concern over high water levels in the Great Lakes and consequent flooding and erosion of the shoreline, the IJC requested the International Great Lakes Levels Board in January 1973 to prepare a special report dealing with the possibility of operating the control works at Sault St. Marie in such a way as to provide relief for the lower Great Lakes and at the same time maintain satisfactory conditions on Lake Superior.

Concurrently, on January 30, 1973, as a result of an emergency application from the U.S. Government and expressions of concern from the Canadian Government, the IJC directed the International Lake Superior Board of Control to deviate from its current regulation plan for a period of 3 months and further reduce Lake Superior outflows to approximately 55,000 cubic feet per second, the minimum winter outflow allowed under the regulation plan.

Subsequently, this period of reduced flows was extended to June 30, 1973, to allow time for consideration by the Commission and the two Governments of the desirability and feasibility of modifying the operation of the control works to relieve conditions on the lower Great Lakes.

In June 1973, the period was again extended. The extent of damage to the property owners on Lake Superior brought about by this change in regulation has not been quantified. Nor has an appropriate methodology of indemnification been developed.

Section 608 will provide Congress with the type of information needed to determine the appropriateness and best manner of providing relief.

SECTION 609

This section directs the Secretary to study the feasibility of requiring boat loading facilities constructed pursuant to a permit issued by the Secretary to display sufficient lighting, in the interest of safety, to make the facility's presence known within a reasonable distance between sunset and sunrise. A report on the study, including recommendations, is to be submitted to the Congress not later than September 30, 1984.

SECTION 610

This section directs the Secretary to prepare and submit to Congress within 2 years after the date of enactment of the Act an estimate of the long-range capital investment needs for water resources programs under the jurisdiction of the Secretary. The estimate is to include, but not be limited to, needs for ports, inland waterway transportation, flood control, municipal and industrial water supply, and hydroelectric power, recreation and fish and wildlife conservation and enhancement associated with such programs.

The estimate shall include, but not be limited to:

> an estimate of the current service levels of public capital investments and alternative high and low levels of such investments over a period of ten years in current dollars and over a period of five years in constant dollars;
>
> capital investment needs in each major program area over a period of ten years;

an identification and analysis of the principal policy issues that affect estimated capital investment needs;

an identification and analysis of factors that affect estimated capital investment needs including but not limited to the following factors;

(A) economic assumptions;

(B) engineering standards;

(C) estimates of spending for operation and maintenance;

(D) estimates of expenditures for similar investments by State and local governments;

(E) estimates of demand and need for public services derived from such capital investments and estimates of the service capacity of such investments;

(F) the effects of delays in planning and implementation of water resources projects on the capital investment costs of water resources programs, including increased costs associated with interest rates and inflation; and

(G) a description of the economic, social, and environmental benefits realized from past investments and expected to be realized from future investments, including the protection of life and property.

The Secretary of the Army traditionally has been assigned the responsibility of constructing, operating and maintaining port and inland waterway navigation projects, flood control projects, and multiple purpose reservoirs serving the pruposes of navigation, flood control, hydroelectric power, and municipal and industrial water supply. Many of these projects, particularly locks and dams in the inland waterways, have reached or are nearing the end of their useful life and need rehabilitation or replacement. In addition, many of the nation's water resources needs are yet to be met, particularly in the areas of flood control and water supply. The information contained in the report called for in Section 610 is necessary to enable the Congress to make appropriate budgetary and policy decisions with regard to future water resources projects. In addition to the detailed 10-year estimate referred to in Section 610, the Committee expects that the Secretary's report will also include more general estimates of long-range capital investment needs over a period of at least 30 years, to facilitate more responsible Federal budget control and more efficient national infrastructure investment decision-making.

On May 16, 1983, the Committee on Public Works and Transportation ordered reported H.R. 1244, the Federal Capital Investment Program Information Act. The purposes of this bill are to provide budget projections for major capital investment programs of the Federal Government, to summarize needs assessments for major capital investment programs, to provide information on the relationship of those needs to policy issues and economic variables, to assist State and local capital investment planning and to improve legislative oversight over Federal capital investment programs. The information developed by the Secretary under Section 610 will form a useful part of the overall capital investment requirements of H.R. 1244 as well as providing valuable data on the water resources infrastructure needs of the Nation.

SECTION 611

The section directs the Secretary to expedite completion of the study of New York Harbor and Adjacent Channels, New York and New Jersey, which was authorized by a resolution of the Committee on Environment and Public Works of the Senate, dated December 15, 1980, and to submit a report to Congress on the results of the study not later than October 1, 1985.

SECTION 612

This section authorizes the Secretary to study the feasibility of identifying the amounts, types and locations of flood control benefits produced by reservoir projects and of requiring non-Federal participation in such projects in proportion to the benefits received from the projects. The Secretary's report and recommendations are to be submitted to Congress not later than two years after the date of enactment of the bill.

Present law requires certain items of non-Federal cooperation for local flood protection projects. These include provision of necessary lands, easements, rights-of-way and relocations, and operation and maintenance of the project after completion. In addition, Title III of the bill provides for a uniform percentage for non-Federal participation of 25 to 30 percent. The costs of reservoirs protecting a large geographic area allocated to flood protection have generally been borne entirely by the United States because the flood control benefits to individual areas are not readily ascertainable. In addition, where numerous States and localities are involved, assignment of appropriate levels of non-Federal cooperation among them presents many difficulties.

The Committee feels, however, that where the beneficiaries of flood control benefits from reservoirs are identifiable and the amounts of benefits to individual areas are ascertainable, the feasibility of requiring some form of non-Federal cooperation warrants further examination. The study called for in Section 612 will provide the information necessary to enable the Committee to determine whether requiring such cooperation is indeed feasible and appropriate.

SECTION 613

This section directs the Secretary to study and monitor the extent tha adverse environmental effects of dioxin contamination in the Passaic River-Newark Bay navigation system. The Secretary is to transmit a report on the results of the study and monitoring together with recommendations concerning methods of reducing the effects of such contamination to the Committee on Environment and Public Works of the Senate and the Committee on Public Works and Transportation of the House of Representatives within one year after the date of enactment of the bill.

The possible contamination of the waters of the Passaic River and Newark Bay from dioxin in bottom sediments is a matter of great concern. This constitutes a potential danger to the ecosystems of these waters. In addition, the disposal of dioxin contaminated dredged materials resulting from maintenance of the navigation system creates the risk of serious environmental problems.

The study and monitoring of the extent and effects of dioxin contamination will define the scope of the problem and address possible remedial measures. In conducting the study, the Secretary is expected to consult with appropriate Federal, State and local agencies. Numerous studies are being performed with respect to dioxin contamination in various regions of the country. It is expected that those studies and the study undertaken by the Secretary pursuant to Section 613 will benefit from interagency coordination and exchange of information.

SECTION 614

This section directs the Secretary to submit to Congress within one year after the date of enactment of the bill a list of authorized water resources studies for which no report has been transmitted to the Congress. For each study the Secretary is to include information on the date of authorization of the study, the purpose of the study, the funding made available, any work that has been performed on the study and work that remains to be done in completing the study. For each such study the Secretary is to make a recommendation as to whether the study should continue to be authorized.

There are a large number of authorized studies which have not been completed or which have never been commenced. The information provided pursuant to this section will enable the Committee to develop legislation deauthorizing studies which are no longer needed so as to remove any unnecessary backlog of authorized but uncompleted work.

SECTION 615

This section directs the Secretary to prepare and submit the annual report on Corps of Engineers' activities in two volumes. Volume I is to consist of a summary and highlights of Corps of Engineers's activities, authorities and accomplishments. Volume II is to consist of detailed information and field reports on Corps of Engineers's activities. The Corps of Engineers's annual report has traditionally been prepared in two volumes, which is a very useful format. Recently, however, this format has been dropped in favor of a single volume report which does not include the information previously contained in volume I. Section 615 directs a return to the prior form.

Subsection (b) of Section 615 directs the Secretary to prepare biennially for public information a report for each State containing a description of water resources projects under the jurisdiction of the Secretary in the State and the status of each project. Until recently so-called "State books" for each State have been published by the Corps of Engineers. These volumes are a valuable reference source for the Corps' water resources program. Publication of these volumes has been terminated. The purpose of subsection (b) is to ensure that this information continues to be available.

SECTION 616

This section authorizes and directs the Secretary to undertake a study of the feasibility of navigation improvements at Saginaw Bay and Saginaw River, Michigan, including channel widening and deepening. The feasibility report on the study is to be submitted to Congress not later than September 30, 1985.

SECTION 617

This section authorizes the Secretary to study the feasibility of constructing shoreline erosion mitigation measures along the Rancho Palos Verdes coastline, California, for the purpose of providing additional stabilization for the Portuguese Bend landslide area. Stabilization of the landslide area at Portuguese Bend is made difficult by the eroding coastline which forms the toe of the slide area. The purpose of the study is to identify measures to control the erosion in order to complete stabilization efforts which have been undertaken for the slide area.

SECTION 618

This section directs the Secretary to expedite completion of the study of the navigation project for the Sunset Harbor, California, and to submit a report to Congress on the results of the study not later than October 1, 1984. The study is to include a determination of the feasibility of recovery of Federal project costs through Federal participation in the local economic benefits created by the construction and operation of the project.

SECTION 619

This section authorizes the Secretary to conduct an inventory of nearshore sediment in the offshore waters of Louisiana between Southwest Pass and Sabine Pass and in Lake Pontchartrain and Lake Borgne. The purpose of the study is to provide information on the feasibility of using sediment deposits for nourishment to diminish shoreline erosion, marsh deterioration, salt water intrusion, hurricane vulnerability, and barrier island destruction.

TITLE VII

PROJECT MODIFICATIONS

SECTION 701

The navigation project for Lynnhaven Inlet, Bay, and connecting waters, Virginia, was authorized by Section 101 of the River and Harbor Act of 1962.

Long Creek Canal is a portion of that project which is located on the south shore of Chesapeake Bay, five miles west of Cape Henry and ten miles east of Norfolk, Va. The inlet connects Lynnhaven Roads, a port of Chesapeake Bay, with a network of inland waters in the northern half of the City of Virginia Beach, Virginia.

In 1961, the Commonwealth of Virginia constructed a bridge over Long Creek Canal to carry Virginia Highway 615 over the Canal.

This is a major roadway connecting the northern and southern part of the Virginia Beach.

Following initial project dredging in 1965, it was determined that a large amount of scouring and deepening of the canal bottom below project depth was occurring in the vicinity of the bridge. Continuing scouring caused the City of Virginia Beach to notify the Corps of Engineers in April 1971 as to the emergency situation of the canal bank on the highway bridge approach and to request Federal assistance. Subsequently, after informing the Corps of Engineers, the City initiated, and has now completed, remedial work to alleviate the emergency and to protect the access road to the bridge.

The Corps of Engineers does not have authority to reimburse local interests for work performed by them to alleviate this type of damage caused by a Federal navigation project.

This section authorizes the Secretary of the Army, acting through the Chief of Engineers, to pay the City of Virginia Beach, Virginia, $1,660,000 for the remedial work which the city was required to carry out for Long Creek Canal as a result of the navigation project for Lynnhaven Inlet, Bay, and connecting waters, Virginia.

SECTION 702

This section modifies the project for navigation on the Southern Branch of the Elizabeth River, Virginia, to delete the requirement that local interests contribute in cash for land enhancement benefits 2.4 per centum of the construction cost of the project. The requirement for the non-Federal contribution in the project as authorized reflected land enhancement which would accrue from deposition of dredged material. For the project as now planned, there will be no such land enhancement. Accordingly, Section 702 deletes the requirement for the non-Federal contribution.

SECTION 703

This section modifies the plan for flood control and other purposes in the Ohio River Basin authorized by the Flood Control Act of 1938 to authorize the Secretary of the Army, acting through the Chief of Engineers, to reconstruct and repair two bridges at Massillon, Ohio. The Massillon local protection project, constructed by the Corps of Engineers as an element of the 1938 plan, was completed in 1951. The existing Cherry Street and Walnut Street Bridges were, in turn, constructed as elements of this project. Responsibility for operation and maintenance of the two structures was subsequently assumed by Stark County. The decks of the two structures, although constructed to design standards acceptable at the time, have proven unsatisfactory in the service and weather conditions to which they have been subjected. The requirements necessary for reconstruction of the decks so as to restore the two bridges to safe and satisfactory service are beyond those which the county may reasonably have expected when assuming its responsibility. This section provides a one-time authorization for reconstruction of the bridge decks at Federal expense to insure that with reasonable maintenance effort by the county, the two structures will thereafter be capable of providing safe and satisfactory service.

SECTION 704

This section modifies the authorized navigation project at Mamaroneck Harbor, New York, to provide that the Federal share of the additional cost of disposing dredged material in ocean waters shall be 80 percent.

The authorized project provides that the local interests are responsible for furnishing dredged material disposal areas and for paying all costs associated with the disposal of such material if an upland disposal site is not available. Until recently, these costs were minimal since the local interests were able to dispose of the dredged material at an upland disposal site, or it could be disposed of in the Long Island Sound at a small cost.

In recent years, conditions have changed drastically. Environmental concerns have required the closing of disposal sites in the Sound, and the development of land in the area has precluded the availability of open space suitable for the disposal of dredged material upland. The alternative for disposal of the material is a disposal site located in the open sea. However, the cost associated with open water disposal is estimated to be about $500,000, which would be a very large increase in local cost sharing—far higher than contemplated at the time the project was authorized.

SECTION 705

This section modifies the project for hurricane-flood protection for Lake Pontchartrain, Louisiana, to provide that the Secretary is authorized to construct features, such as a flood wall with sluice gates or other means, to insure that, by the most economical means, the level of protection within Jefferson Parish provided by the project will be unimpaired as the result of any pumping station constructed by local interests. The purpose of the section is to insure the integrity of the levee built by the Federal Government, during times of high water. Without the type of protection authorized by this section, failure of a pumping station which forms a part of the levee would result in a breach of the levee and cause serious flooding.

SECTION 706

The Reelfoot Lake Area, Kentucky and Tennessee, project is located in Fulton County, Kentucky, and in Lake Obion and Dyer Counties in Tennessee. Principal features of the project include cleaning out, construction of a pumping station and outlet structure, and channel enlargement of Bayou du Chien, Kentucky and Tennessee, and Running Reelfoot Bayou, Tennessee. Improvement of these streams will reduce the extent of overflows during the crop season and materially reduce the duration of experienced overflow periods.

Local interests are required to furnish all rights-of-way, lands and easements, operate and maintain all improvements after completion, and assume the cost of alteration and replacement of all highway bridges.

Construction was initiated on the project in 1955 and the 19-mile improvement of Running Reelfoot Bayou was completed in October 1962. The estimated cost of the entire project is $10,800,000. Construction on Lake No. 9 floodgate was started in 1974, and completed September 14, 1976, at a cost of $2,071,064. Lake No. 9, Pumping Station is under contract for design. About three miles of channel improvements have been completed and plans for the remaining 13 miles are underway.

Section 706 modifies the project to provide that operation of the pumping plant shall be the responsibility of the United States.

SECTION 707

Section 707 modifies the Yaquina Bay and Harbor project, Oregon, to authorize the Secretary to raise the south jetty by about eight feet for a distance of some 3,800 feet. This will keep waves from overtopping and eroding an access road, which is to be improved and maintained by local interests, to the heavily used public beach areas on the accreted land behind the south jetty.

SECTION 708

The construction of Chatfield Lake on the South Platte River just above the City of Denver, Colorado, was authorized by the Flood Control Act of 1950. The total capacity of the authorized reservoir (354,900 acre-feet) was allocated for essentially two functions; conservation in the form of recreation use (23,800 acre-feet) and flood control (331,100 acre-feet). Of the flood control capacity, 119,900 acre-feet was assigned to a surcharge function.

Since the construction of Chatfield Lake, changes have occurred in the provision of flood control protection to the Denver metropolitan area which may make it possible for the Chief of Engineers to reallocate some of the Lake's flood storage for multiple-purpose needs of the community without impairing the flood control function of that facility. Among those changes is the construction of Bear Creek Lake which would control flood flows into the South Platte River from a large tributary downstream from Lake Chatfield. Tentative findings of a study by the Omaha District of the Corps of Engineers of Water and Related Land Resources Managment in the Denver metropolitan area, dated September 1977, appear to suggest that with appropriate in-depth hydrology studies normally associated with post authorization changes, such a reallocation might, with safety, reasonably be made to expand the use of the facility for multiple-purpose benefits.

Testimony received by the Committee in support of this section stated that:

(1) There is a genuine need to make a part of the reallocable capacity available to permit the achievement of a fishery habitat enhancement program in an approximately 5½ mile reach of the South Platte River above Chatfield Lake which is proposed by the U.S. Fish and Wildlife Service. Such a proposal has been made in connection with the granting of rights-of-way by the U.S. Forest Service and the U.S. Bureau of Land Management for the use of

Federal lands by the City and County of Denver in the construction of facilities required for a new water treatment plant for service to the city and its surrounding metropolitan area. The Federal proposal contemplates that the City and County of Denver agree to bypass through the upstream Strontia Springs Dam, out of water otherwise lawfully divertible by Denver, flows required to insure a minimum stream flow of 60 cubic feet per second during the summer and 30 cubic feet per second during the winter to preserve and enhance the fishery in that reach of the river between Denver's proposed Strontia Springs Dam and Lake Chatfield. Unless the bypass flows can be captured and reregulated in the downstream Chatfield Lake facility, the waters thus bypassed by the City and County of Denver would be lost to the people of the Denver metropolitan area and result in a waste of that resource. The magnitude of such waste could range from 6,500 to over 17,000 acre-feet of wate per year. To avoid that waste, the storage reregulation and release of that water at times when it can be diverted by Denver becomes extremely important.

(2) The State of Colorado, which has assumed the responsibility for managing the recreational uses of the existing conservation allocation of Chatfield Lake, has been unsuccessful in finding a way to maintain a minimum lake level which would be compatible with the recreational demands of the facility. The maintenance of that level against evaporation losses could, if proper regulatory storage were available in Chatfield Lake for Denver's use, make it possible for Denver to utilize its water rights to assist the State in maintaining its management level, again without loss of water to the people of the City of Denver.

(3) A need for municipal and industrial water supply storage in Chatfield Reservoir, not perceived at the time of the construction of the facility, has now emerged. Meeting that need could significantly benefit the people of the Denver metropolitan area as they plan to manage the scarce resources of the South Platte River system to meet the demands for municipal water service expected to occur. Reimbursement for the use of such municipal and industrial water supply and storage would, of course, be arranged for under the authority of, and in conformity with, the requirements of the Water Supply Act of 1958.

Section 708 authorizes the Secretary, upon the request of and in coordination with the Colorado Department of Natural Resources and upon the Chief of Engineers' finding of feasibility and economic justification, to reassign a portion of the storage space in Chatfield Lake to joint flood control conservaton purposes.

The requirement for the request of and coordination with the Colorado Department of Natural Resources in any allocation of additional space is to insure that the State of Colorado will have an active role in any future storage allocation decisions with respect to Chatfield Lake. The Department of Natural Resources has overall responsibility for five agencies directly affected by such decisions pertaining to the project.

This section is to be implemented consistent with the downstream flood protection requirements contained in Section 756 of this bill.

SECTION 709

This section modifies the project for flood protection and other purposes on the Sacramento River, California, to authorize the Secretary to construct bank protection works along the reach of the Sacramento River and its tributaries from Red Bluff to Shasta Dam and from Chico Landing downstream along each bank to the head of the Sacramento River flood control project levees, subject to the same requirements of non-Federal cooperation applicable to other similar elements of the project. Mitigation of fish and wildlife losses induced by bank stabilization work is also authorized. Section 709 also provides that the evaluation and justification of the project shall be based on the overall costs and benefits of all project elements and authorizes not to exceed $25 million over and above prior appropriations to carry out the project.

The project for flood protection on the Sacramento River and tributaries was originally authorized by the Flood Control Act of 1917. Since then, it has been modified and supplemented by a number of subsequent laws. The bank protection feature of the project consists of a long-range program for construction of bank erosion control works and setback levees. Its purposes are to maintain the integrity of the levee system of the flood control project, and prevent serious erosion problems and associated deposition of sediment in downstream channels. The releases from Shasta Dam, a Federal project, are causing erosion problems in the reach between the dam and Red Bluff. Accordingly, this section of the river, immediately upstream of the existing bank protection work, has been added to the overall project, in addition to the section of the river downstream from Chico Landing.

SECTION 710

This section modifies the project for King Harbor, Redondo Beach, California, to provide that all costs of the dredging and maintenance of the general navigation features of the project shall be borne by the United States.

The project, as authorized, did not provide for Federal maintenance. Since that time, however, maintenance has been found to be necessary. Since maintenance of the general navigation features is traditionally a Federal responsibility, the Committee has provided for Federal maintenance in Section 710. The section also authorizes the Secretary to restore all the breakwaters to a height of 22 feet and study the need for and feasibility of raising the breakwaters to a height greater than 22 feet.

SECTION 711

The project for harbor improvement at Honolulu Harbor, Oahu, Hawaii, was authorized by the River and Harbor Act of 1965. Local interests were required to contribute in cash prior to construction 2.6 percent of the estimated Federal cost of construction based on land enhancement benefits resulting from deposition of dredged material. This sum is currently estimated to be $112,000.

In the post-authorization studies on the project, the Corps of Engineers determined that disposal of the dredged material at sea was more environmentally desirable than land disposal. This finding negates the land enhancement benefit on which the 2.6 percent contribution was based.

SECTION 712

Santa Cruz Harbor is located at the northern end of Monterey Bay, 65 miles south of San Francisco Bay. The River and Harbor Act of 1958 provided for construction of a protected harbor for light draft vessels in Woods Lagoon, near the eastern limits of the City of Santa Cruz. The harbor was completed in 1963.

The project consists of east and west jetties, a 1,270-foot entrance channel, a 1,400-foot harbor channel and a turning basin. Controlling depths range from 10 feet to 20 feet.

Following construction of the harbor jetties in 1963, the Corps maintained the project through annual dredging operations. However, the buildup of sand in the entrance channel has prevented passage of vessels in or out of the harbor for weeks at a time, resulting in severe financial hardship to fishermen and others trapped in the harbor.

A jet pump was installed in 1976 for sand bypassing operations and proved to be beneficial.

Section 712 provides that the full cost operating and maintaining the sand bypass facility at the harbor shall be paid for by the United States.

The authorized project provides that if a permanent sand bypass is determined to be necessary, the United States will reimburse local interests for the cost of plant operation and maintenance up to a limit of $35,000 annually. At that time, $35,000 was considered sufficient to cover the full cost of maintaining an open channel.

However, the $35,000 figure was based on 1958 prices and on an estimate on a shoaling rate of 25,000 cubic yards per year. In recent years, the actual shoaling rate has approached 150,000 cubic yards per year, and the estimated annual cost of operating a permanent sand bypass is between $500,000 and $1 million. This section recognizes the increased shoaling rate and costs.

Section 512 further modifies the project to authorize the Secretary to undertake such maintenance dredging outside the boundaries of the authorized project as may be necessary to prevent or mitigate shoaling, surge and related problems in the harbor.

SECTION 713

This section modifies the project for the Mouth of the Colorado River, Texas, to provide that the diversion channel to divert Colorado River flows into Matagorda Bay shall be constructed and maintained for the purpose of fish and wildlife enhancement entirely at Federal expense.

The Mouth of the Colorado River project was authorized by the River and Harbor Act of 1968. The project purposes are to satisfy the need for a shallow draft navigation channel in the Colorado River from the Gulf Intracoastal Waterway (GIWW) near Matagorda, Texas, to the Gulf of Mexico, and to develop the recreational potential of the area.

The navigation and recreation features of the plan provide for a protected entrance channel 15 feet deep and 200 feet wide at the mouth of the Colorado River; a jetty system which includes a weir jetty on the east side of the entrance; an impoundment basin located adjacent to the weir section of the east jetty to trap westerly moving littoral material; a navigation channel 12 feet deep and 200 feet wide along the alignment of the existing Colorado River flood discharge canal from the Gulf shore to the GIWW near Matagorda, Texas; and a harbor and turning basin 12 feet deep, 350 feet wide, and 1,450 feet long, on the north side of the GIWW. The plan also includes a submerged stone weir with a navigation opening at the entrance to Tiger Island Channel, a side channel connecting the existing flood discharge channel to Matagorda Bay; and two public use areas with recreational facilities.

The total first cost for the first stage work is estimated at $12,776,000, of which $9,759,000 is apportioned to the Federal government and $3,017,000 is apportioned to non-Federal interests. The non-Federal cost includes an estimated cash contribution of $2,200,000 and an estimated cost of lands and retaining levees of $817,000. The annual charges are estimated at $914,000 and the annual benefits are estimated at $1,273,000. The ratio of annual benefits to cost is 1.4.

The authorized plan also provides for complete diversion of the Colorado River flows into Matagorda Bay which was included primarily to separate the navigation and flood discharge channels, while secondarily reducing flood damages to existing development along the Colorado River channel below the point of diversion and increasing the commercial seafood catch from Matagorda Bay.

It has now been determined that flood control benefits associated with the diversion channel do not exceed its costs, and that it is therefore not incrementally justified under traditional economic criteria. Under ordinary circumstances, and usual project evaluation criteria, the project would be constructed without the diversion channel. The U.S. Fish and Wildlife Service, however, has strongly urged that the channel be retained as part of the project because of its contribution to enhancement of the fishery in Matagorda Bay.

Section 713 makes this possible by providing that the channel shall be constructed at full Federal expense, which is the established cost-sharing policy with regard to enhancement of commercial fisheries, and by overcoming the traditional economic justification problems by including a Congressional finding that the benefits attributable to the channel at least equal its costs. The Committee considers this to be a proper and appropriate solution to the problem of justifying fish and wildlife enhancement features which are not quantifiable in traditonal economic terms.

SECTION 714

Section 213 of the Flood Control Act of 1970 authorized the Secretary of the Army, acting through the Chief of Engineers, to resolve the seepage and drainage problems in the vicinity of the town of Niobrara, Nebraska, related to the operation of the Gavins Point

Dam and Lewis and Clark Lake Project. Subsequently, the town was relocated.

Section 714 authorizes the Secretary to relocate almost two miles of hard surfaced highway (Nebraska State Highway 12) and its connections to State Highway 14. The relocated road would pass through the relocated town and connect to a new bridge over the Niobrara River.

SECTION 715

The development of the Alabama-Coosa River System for navigation, flood control, power development and other purposes was authorized in the River and Harbor Act of 1945. Subsequently, the Corps of Engineers divided the work authorized by the 1945 Act into three distinct segments—the Alabama River to Montgomery, Alabama; the Coosa River between Montgomery and Gadsden, Alabama; and the Coosa River between Gadsden, Alabama, and Rome, Georgia. Work on the Alabama River segment is essentially complete; work on the Coosa River between Gadsden to Rome has been deferred for restudy; and the segment of the Coosa River between Mongomery and Gadsden has not yet been started.

The 1945 Act was modified in 1954 by P.L. 436, 83rd Congress, which suspended the authorization for Federal development of hydropower on the Coosa River, and authorized private interests (the Alabama Power Company) to construct a series of dams on the Coosa River for the purpose of generating hydroelectric power, subject to licensing requirements under the Federal Power Act. The 1954 Act contemplated future navigation work on the Coosa River by requiring that any dams constructed by the licensee must provide a continuous series of pools and must include basic provisions for the economical future construction of navigation facilities. The Alabama Power Company has constructed five such dams on the Coosa River in accordance with the 1954 Act.

In the Public Works Appropriations Act of 1956, the Congress requested a report on the Alabama-Coosa River project. That report was completed in 1958, transmitted to Congress, and printed as House Document 320. The plan presented in H. Doc. 320, which is the presently authorized project plan, calls for the installation of Federal locks both in proposed and existing Alabama Power Company dams on the Coosa River and the construction of associated channels and relocation work. The Coosa River project was subsequently studied again as part of the Appalachian Water Resources Survey and again in response to additional study directives contained in appropriations acts passed in 1974 and 1975.

A General Design Memorandum (GDM) for navigation features on the Coosa River between Montgomery and Gadsden, Alabama, was completed by the Corps' Mobile District in May 1982, following funding in the appropriations acts for fiscal years 1978 through 1981, as well as supplemental appropriations in fiscal years 1978 and 1980. The GDM calls for the installation of Federal locks at five Alabama Power Company Dams, associated channel and relocation work, and mitigation measures. Additional Congressional authorization is required for implementation of the plan described in the GDM. Section 715 provides the necessary authorization.

SECTION 716

This section modifies the La Farge Dam project for flood control and allied purposes for the Kickapoo River, Wisconsin, authorized by the Flood Control Act of 1962, to authorize and direct the Secretary to construct as soon as possible, and within available funds, the flood control levee channel improvement and interior drainage facilities for Gays Mills, Wisconsin, substantially in accordance with the recommendations of the Chief of Engineers in House Document 450 (87th Congress) at an estimated cost of $4 million.

The project features authorized by Section 716 may be funded under Section 205 of the Flood Control Act of 1948, which is the Corps of Engineers Small Flood Control Project Authority. The benefits and costs resulting from construction of the project features at Gays Mills shall continue to be included for purposes of determining the economic feasibility of completing the partially constructed La Farge Dam.

Subsection (b) of Section 716 authorizes and directs the Secretary to complete as soon as possible a reconnaissance study under Section 205 with respect to such structural and nonstructural measures as the Secretary determines ar necessary and appropriate to prevent flood damage in the vicinity of Viola, Wisconsin.

The authorization provides for the construction of a multiple purpose reservoir with a dam located 1.5 miles north of La Farge, Wisconsin, as well a channel improvement downstream and levees and other local improvements at the downstream villages of Soldiers Grove and Gays Mills.

Section 716 will permit that portion of the project providing protection to Gays Mills to proceed so that this community may be protected from the floods which occur in the Kickapoo Valley virtually every year. It also will direct a study under the Corps of Engineers Small Project Authority of flood damage protection measures for Viola, Wisconsin, which will include construction measures found feasible pursuant to that Small Project Authority.

SECTION 717

Section 137 of the Water Resources Development Act of 1976 modified the project for flood control in East St. Louis and vicinity, Illinois, authorized in the Flood Control Act of 1965, to authorize the Secretary of the Army, acting through the Chief of Engineers, to construct the Blue Waters Ditch segment of the overall project independently of the other project segments.

Originally, the project consisted of a pumping station with a capacity of 414 cubic-feet-per-second (cfs) for interior drainage for an area where natural drainage was blocked by construction of mainline levees on the Mississippi River. Today there are 950 acres including 1,600 homes in the flood plain. Flood control needs are urgent.

Design studies by the Corps showed minor modifications were required, including an increase in pumping station capacity from 414 to 600 cfs and the addition of five miles of channel improvement to increase efficiency and enhance environmental quality. The added cost of the channel work is estimated to be $3.5 million; $2.2 million for Federal cost of construction, and $1.3 million for local costs of land, easements and right-of-way including bridge alterations.

Section 717 authorizes the Secretary to provide the necessary drainage channels in conjunction with the pumping plant, substantially in accordance with the report of the District Engineer, St. Louis District, dated September 1976.

SECTION 718

Section 718 modifies the project for flood protection at Winona, Minnesota, authorized in 1971, to provide that changes to two bridges within the city limits made necessary by the project and its present plan of protection shall be accomplished at Federal expense, at an estimated cost of $630,000.

In 1971, during early stages of planning the flood control project, the Corps of Engineers advised Winona County and the Minnesota Highway Department that the final flood control plan would not affect bridge work on County State Aid Highway 17 crossing over Burns Valley Creek within Winona's city limits. They further stated that the flood control project could be modified so that it would be compatible with bridge construction. Having received this assurance, the local interests went ahead with construction of the new bridge, satisfying Corps standards.

In 1975, the Corps raised protective flood dike standards from 50 years to at least 200 years (standard project flood). As a result, the city of Winona fund that the Corps' designs finished in 1976 for the flood control project affecting Burns Valley Creek, required bridge alterations.

Accordingly, Section 718 makes the replacement and alternation of the bridges a Federal responsibility at this project.

SECTION 719

Implementation of the authorized flood control project, Wenatchee, Washington, Canyons 1 and 2, has been delayed because of the inability of the local interests to finance their portion of the project costs; namely, those costs to acquire lands, easements, rights-of-way, and to carry out relocations.

Section 719 authorizes the Secretary to acquire the necessary property and to carry out the relocations, but does not relieve the local interests of their responsibilities. However, the section does permit repayment to be over a 50-year period with appropriate interest on the unpaid balance.

SECTION 720

This section modifies the project for replacement of Locks and Dam 26 on the Mississippi River at Alton, Illinois, to provide for the repair of the Red School House County Road, St. Charles County, Missouri. The road is to be repaired to such standards as the Secretary considers reasonable, but in no event less than the minimum standard required by the County.

The Red School House Road has been used for access to the construction site of the new Locks and Dam 26. As a result, the road has suffered extensive damage. Section 720 provides for the necessary repair of these project-related damages.

SECTION 721

Section 66 of the Water Resources Development Act of 1974 authorized the Chief of Engineers to undertake measures to clear that portion of the Little Calumet River, Illinois, between the point of its confluence with the Calumet-Sag Channel and the Indiana State line, of fallen trees, roots, silt, and other objects which contribute to flooding, unsightliness, and pollution of the river.

Section 721 authorizes the Chief of Engineers to maintain the channel after he accomplishes the work authorized in Section 66. Non-Federal interests are required to pay 25 percent of the cost of the maintenance work.

SECTION 722

Section 92 of the Water Resources Development Act of 1974 modified the procedure for repayment of the non-Federal cost requirement for the hurricane-flood protection project for Lake Ponchartrain, Louisiana, authorized by the Flood Control Act of 1965. That provision permitted the non-Federal public bodies to enter into an agreement to repay the unpaid balance of the cash contribution with interest in 25 yearly installments.

Section 722 authorizes the Secretary of the Army to modify the agreement entered into between the Secretary and St. Bernard Parish so that each installment to be paid by the Parish shall be one-fiftieth of the remaining unpaid balance as set forth in the agreement plus interest on the balance. The total of the installments must be sufficient to achieve full payment of the balance, plus interest, within 50 years of the initiation of the project construction.

This section does not change the amount of non-Federal costs, but merely changes the procedures for repayment.

SECTION 723

Section 116 of the River and Harbor Act of 1970 authorized the Chief of Engineers to undertake measures to clear the channel of the North Branch of the Chicago River, Illinois, of fallen trees, roots, and other debris and objects which contribute to flooding, unsightliness, and pollution of the river. Section 7 of the Water Resources Development Act of 1974 authorized continued maintenance of the channel by the Chief of Engineers.

Section 723 further modifies Section 116 of the River and Harbor Act of 1970 by requiring that before the commencement of any operation to maintain the channel, the Secretary of the Army, acting through the Chief of Engineers, shall enter into a separate agreement with the appropriate non-Federal interests which is applicable only to that operation and which requires non-Federal interests to pay 25 percent of the cost of the maintenance operation.

SECTION 724

Lake Belton, Texas, was completed in 1954, with 125,700 acre-feet of conservation space. The project, as authorized, requires that not to exceed 45,000 acre-feet shall be available for irrigation purposes in the Leon, Lampasas and Little River Valleys. The Brazos River Authority has contracted for 113,569 acre-feet of storage for water supply with the proviso that 45,000 acre-feet shall be available for irrigation purposes when needed. This need has never materialized; nor is there any reasonable likelihood that there will be such a need in the future. Section 724 would make water supply an alternative project purpose, thereby permitting the use of the 45,000 acre-feet of storage permanently for water supply rather than on a tentative conditional basis.

SECTION 725

Local interests have dredged Greens Bayou, Houston Ship Channel, from its authorized project depth of 36 feet to 40 feet. The navigation project was authorized under Section 301 of the River and Harbor Act of 1965. Section 725 would authorize the Secretary to maintain the channel to its current depth. The added maintenance dredging does not entail significant cost over that needed to maintain the channel at its authorized depth of 36 feet.

SECTION 726

This section authorizes the Secretary to modify any water resources development project of the Corps of Engineers to provide for mitigation of damages to fish and wildlife if the estimated cost of the modification does not exceed ten percent of the estimated total cost of the project (both Federal and non-Federal) or $7,500,000, whichever is the lesser. No appropriation may be made for any such modification if the modification has not been approved by resolutions adopted by the Committee on Environment and Public Works of the Senate and the Committee on Public Works and Transportation of the House of Representatives. To secure this approval, the Secretary of the Army must transmit a report on the proposed modification to the Congress.

In the case of many projects, especially the older ones, the need for mitigation of damages to fish and wildlife becomes evident when the project is ready to proceed to construction. Presently, this requires a modification of the project by an Act of Congress. Accordingly, the Committee has included this general authority for mitigation up to a set level. This will expedite the provision of mitigation measures and allow many projects to go forward sooner with adequate provision for mitigation.

SECTION 727

This section modifies the Rio Grande bank protection project, Texas, to provide that bank protection work may be undertaken in Starr County, Texas.

The Rio Grande bank protection project is being undertaken by the International Boundary and Water Commission, United States and Mexico. The authorized project does not include Starr County.

The problems which the project is addressing, however, exist also in Starr County. Accordingly, Section 727 modifies the project to include this additional area.

SECTION 728

This section modifies the flood control project for the Anacostia River and tributaries, District of Columbia and Maryland to authorize the Secretary of the Army, acting through the Chief of Engineers, to prevent damage to the project caused by the 100-year flood. The preventive work is to include, but not be limited to, replacing riprap, removing sediment deposits, shaping and sodding slopes, and seeding.

The existing project is unable to withstand large floods without suffering serious damage. Section 728 authorizes the necessary remedial work to enable the project to function more effectively.

SECTION 729

This section authorizes the Secretary to provide such electric power to the City of Abbeville, South Carolina, as the Secretary determines to be necessary to mitigate the reduction in hydroelectric power produced at a city-owned plant caused by the construction and operation of the Richard B. Russell Dam and Lake project. The power would be provided to the city without charge for a period not to exceed the remaining service life of the city's plant as part of the operational requirements and costs of the project under such terms and conditions as the Secretary determines to be appropriate.

The City of Abbeville owns and operates a hydroelectric power plant at Lake Secession upstream from the projcet on the Rocky River, a tributary of the Savannah River. Impoundments from the project will generally raise the level of the Rocky River, adversely affecting the operation and maintenance of the city-owned plant. In addition, the rise in water levels will make it impossible to generate as much power at the Lake Secession plant as would have been the case without the project.

Existing legislation (Section 111 of the Rivers and Harbors Act of 1958, as amended) provides discretionary authority to the Chief of Engineers to protect and preserve the integrity, at Federal expense, of facilities owned by a government agency and utilized in the performance of a continuing governmental function when such facilities would otherwise be adversely affected or threatened by construction of any Federal water resources development project. Pursuant to this authority, the Chief of Engineers intends to undertake certain construction efforts to remedy the impediment to the operation and maintenance of the city's plant. However, Section 111 only envisions construction of remedial works; it does not authorize providing power to mitigate for power losses attributable to the Federal project.

Section 729 is designed to place the city on the same footing as prior to construction and operation of the project by providing power from an existing source in a cost-effective manner.

SECTION 730

The River and Harbors Act of 1968 authorized a navigation project for Yazoo River, Mississippi, which provided for a 9-foot channel from the mouth of the Yazoo River to Greenwood, Mississippi, by construction of a lock and dam on the Yazoo River near Vicksburg. All of the bridges over the waterway meet clearance requirements for a modern navigation channel except the highway bridges at Belzoni and Shepardstown.

Since authorization, there has been a growing need for river transportation to Greenwood brought about by the general development of the economy, the growth in soybean production and shortage of rail transport facilities. Navigation under present channel conditions for barges and towboats now in use is severely restricted by low clearance of the bridges at Belzoni and Shepardstown.

The Belzoni Bridge will be relocated pursuant to the authorized project at an estimated Federal cost of $9,216,000. Without the modification in Section 730, the responsibility for the modification of the Shepardstown Bridge would be with the owner, Leflore County.

During the study stage of what has become the Yazoo navigation project, an existing bridge at Shepardstown had to be replaced because of its very hazardous condition. In seeking a permit for the construction of the bridge, the County was required by the Corps of Engineers to agree to provide a lift mechanism to raise the bridge for barge traffic at such time as the Corps deemed it necessary.

The County, needing to replace the existing bridge to protect the safety and welfare of its users, agreed to the condition, received the permit, and constructed the bridge in 1964. If it could have delayed the construction of this bridge until after the authorization in 1968, the construction of the new bridge would have had the same requirements for Federal participation as at Belzoni.

Section 730 modifies the 1968 authorization to provide that the cost of alteration of the Shepardstown Bridge shall be borne by the United States at an estimated cost of $3,600,000.

SECTION 731

The Flood Control Act of 1962 authorized the flood control project for Corte Madera Creek. Construction was initiated in 1967 and was designed to be accomplished in four separate units. Units 1 through 3 were completed by 1971 but construction of Unit 4, consisting of about 3,000 feet of concrete channel, was halted because property owners along the creek were concerned about the environmental impacts. The Corps developed a plan which would be less environmentally damaging and more acceptable to local residents than the concrete channel plan. This alternative plan involves construction of wingwalls to funnel water into the existing project, some channel and bottom work, raising one bridge, and individual flood-proofing of about 12 houses in the floodplain. This plan will provide 100-year flood protection and is estimated to cost less than the original plan.

Section 731 directs the Secretary to proceed with this alternative plan.

Section 732

This section modifies the project for improvement of the Mississippi River below Cape Girardeau with respect to the Teche-Vermilion Basin, Louisiana, to require the Secretary of the Army, acting through the Chief of Engineers, to relocate at Federal expense the Highway 71 bridge required to be relocated by the project, at an estimated cost of $1,200,000.

The project includes a conveyance channel which will carry water from the pumping station on the Atchafalaya River across the West Atchafalaya Floodway to Bayou Courtableau. The original plan called for a portion of the conveyance channel to be constructed along natural drainage features. However, subsequently more detailed investigation indicated that it would be advisable to relocate the conveyance channel along a straight alignment for its entire length. By doing so the acquisition of rights-of-way and easements for the conveyance channel would be made easier, and the straight alignment would require less right-of-way and involve less construction cost. There were also indications that the foundation conditions along the straight channel were better, and that the hydrological characteristics of the conveyance channel would be improved.

Moreover, drainage, which is very critical in this area, could be more easily accommodated. The revision of the plans also included the construction of a bridge over the conveyance channel on U.S. Highway 71 at a location other than that previously proposed.

The Corps of Engineers determined that the construction of this bridge should be classified as a relocation, and thus a non-Federal expense under the project authorization. In view of the facts that the construction of the bridge was not part of the originally authorized plan and construction of a new bridge is required rather than a relocation, the Committee considers it appropriate that the bridge be a Federal expense.

Section 733

This section modifies the Granger Dam project, Texas, to require the Secretary to elevate, relocate, or make such other changes as may be necessary to insure that county roads numbered 361 and 428, including bridges, in Williamson County, are upgraded to conform to the same standards as relocated FM Road numbered 971, at a cost not to exceed $3,800,000.

County roads 361 and 428 were not included in the original relocation agreement between non-Federal interests and the United States at the time of project construction because their continued existence was not considered necessary to the area. Since that time, however, increased traffic and population have made it evident that the roads and their bridges should have been relocated by the Federal Government. Section 733 provides for such relocation.

Section 734

This section directs the Secretary to take such action as may be necessary to insure that approximately 4,000 feet, including bridges and approaches, of the road crossing Cottonwood Branch of Lewisville Lake, Texas, will be above elevation 532 feet above mean sea level.

The bridge in question spans the Cottonwood Branch arm of the Lewisville project and was part of the old State Highway 24 at the project prior to construction. In the relocation program for the project, FM Highway 720 was constructed to provide access to Little Elm, and old State Highway 24, including the bridge, was abandoned. On February 27, 1956, the State highway department reconveyed the portion of the old State Highway 24 that is within the project boundaries to the Federal Government.

Since the completion of construction at the project, there has been no maintenance of the old road, including the bridge, by either the Corps or Denton County, and portions of the bridge are under water.

Reopening the bridge is needed so that improved access can be provided for the Town of Little Elm. This section provides authority for the making of necessary modifications to the bridge so that it will be above the water level of the reservoir.

SECTION 735

Section 735 directs the Secretary to replace the existing bridge across Cane Creek, Logan County, Arkansas, with a new bridge at an estimated cost of $1,800,000. The local interests are required to provide necessary lands, easements, and rights-of-way, to hold and save the United States free from damage due to the work, and to be responsible thereafter for operation and maintenance of the bridge.

As a result of the construction of the Dardanelle Lock and Dam, a county highway bridge in Logan County across Cane Creek was adversely affected. Relocation studies concerning the structure were made and coordinated by the Corps of Engineers with local officials. Subsequently, an agreement was entered into which provided for the abandonment and removal of the bridge in view of the availability of alternative transportation access, low traffic levels and the cost of replacement.

However, more recent review has indicated that the construction of the bridge would have a significant beneficial effect on the economic condition of this rural area, which lost more than 14,000 acres of agricultural lands to the project. The bridge would provide a means for commercial feed and poultry trucks as well as milk tenders to serve their respective interests. From a standpoint of recreation, the bridge would provide a direct access to the Cane Creek Public Use Recreation Area, tying into the New Arkansas River Bridge which is now being built at Clarksville. There is considerable room for development of these facilities to provide greatly expanded recreational opportunities once transportation to the site has been improved. Section 735 makes possible the recreation and economic benefits that were not clearly understood when the original decision not to relocate was made.

SECTION 736

This section modifies the flood protection project on the Susquehanna River at Sunbury, Pennsylvania, to authorize and direct the Secretary to permanently seal the closure structure at the abandoned Reading Railroad site.

When the Sunbury project was constructed, a gap was left in the levee to accomodate the Reading Railroad tracks. This gap is temporarily closed by the non-Federal interests during floods. Had the tracks not existed, no gap would have been left in the levee. The tracks are now abandoned. In view of this circumstance, the Committee considers it appropriate to authorize the Corps of Engineers to now do what it would have done when it constructed the levee if the tracks had not been there.

SECTION 737

This section modifies the navigation project for the Hudson River, New York City to Waterford, New York, to authorize the Secretary of the Army, acting through the Chief of Engineers, to remove shoals between the mouth of Roeliff Jansen Kill and the present navigation channel. These shoals, which are outside the limits of the authorized navigation project, are reducing its usefulness. Their removal is considered appropriate in order to ensure that the navigation project produces a maximum degree of benefits.

SECTION 738

This section modifies the flood control project for the San Lorenzo River, California, to authorize and direct the Secretary to dredge the San Lorenzo River to provide flood protection to Santa Cruz, California, and surrounding areas.

The San Lorenzo River flows from the Santa Cruz Mountains through the City of Santa Cruz where it enters Monterey Bay. Branciforte Creek, a major tributary, joins the River from the South within the City of Santa Cruz. A flood control project comprising 17,000 lineal feet of levees, a floodwall, 1.6 miles of channel work and other improvements on these streams was completed in 1959. Remedial work to the interior drainage system was completed in 1965. The work authorized by Section 738 will provide needed additional flood protection in the area.

SECTION 739

This section modifies the project for flood protection along the Sacramento River and its tributaries, California, to direct the Secretary to accomplish remedial construction necessary to restore the project flood control levees along the Colusa Trough Drainage Canal and the Knight's Landing Ridge Cut. These levees are part of a Federally constructed project and require restoration because of land subsidence in the area.

SECTION 740

This section modifies the project for New Melones Dam and Reservoir, California, to authorize the upgrading to Federal-aid secondary system standards of two segments of the Parrotts Ferry Road. The segments involved are 5.1 miles of the road from north of the Parrotts Ferry Bridge to State Route 4 at Vallecito and 5.4 miles of the road from south of the Parrotts Ferry Bridge to State Route 49 near Sonora, California.

SECTION 741

This section authorizes the Secretary to take necessary remedial measures to assure structural integrity and flood control capacity of the Trilby Wash Detention Basin (McMicken Dam) and Outlet Channel, Maricopa County, Arizona. The Section also transfers the authority of the Air Force over the dam to the Secretary of the Army.

This project was initially constructed for the Air Force by the Corps of Engineers. For the Detention Basin (McMicken Dam) and Outlet Channel, Maricopa County later assumed the responsibility of local sponsor.

In July 1977, it was necessary to breach the dam because of its unsafe condition. The integrity of the structure had been seriously affected by regional ground subsidence caused by groundwater withdrawals. Downstream areas are now without the flood protection formerly provides by the project. The dam is no longer needed for the Air Force base, but it is needed to provide protection to downstream areas. This section provides for reconstruction of the project to provide the needed protection. Operation and maintenance would continue to be a non-Federal responsibility.

SECTION 742

This section authorizes the Secretary of the Army, acting through the Chief of Engineers, to acquire real property by condemnation, purchase, donation, exchange, or otherwise, as a part of any water resources development project of the Corps of Engineers for use for public park and recreation purchases, including, but not limited to, real property not contiguous to the principal part of the project.

Section 4 of the Flood Control Act of 1944, as amended, authorizes the Secretary of the Army, acting through the Chief of Engineers, to construct recreation facilities at water resources projects of the Corps of Engineers. Section 4 was intended to provide broad authority to take advantage of the recreation potentials of Corps of Engineers projects. In recent years the Section has been interpreted as authorizing only the development of recreation areas and construction of access roads on property originally acquired for the project. This inhibits the development of needed recreation facilities, especially at local flood protection projects in urban areas where the need for such facilities is especially critical. The interpretion of Section 4 has recently been somewhat broadened, but clarification is still needed.

Accordingly, the Committee has included Section 742 to make it clear that the Corps of Engineers is authorized to acquire lands or interests therein, such as long-term leases, adjacent to the project areas and in the general vicinity of the principal part of the project, such as lands along a navigation pool for campsites and boat launching facilities, and downstream of the dam for access for fishing, and lands in the vicinity of a local flood protection project for general recreation purposes.

SECTION 743

This section modifies three projects for beach erosion control, storm protection and navigation in New Jersey to provide that the Secretary is authorized to construct each of these features of the projects separately or in combination with other project features. This will provide flexibility in meeting the water resources needs of the areas involved. The three projects are Great Egg Harbor Inlet and Peck Beach, Corson Inlet and Ludlam Beach, and Townsend Inlet and Seven Mile Beach.

SECTION 744

This section modifies the navigation project for the Apalachicola-Chattahoochee-Flint Rivers, Georgia and Florida, in two respects.

The Secretary is authorized, in the course of routine maintenance dredging of the project, to restore and maintain access to bendways and interconnecting waterways, including the upper and lower inlets to Poloway Cutoff, which were isolated during initial construction and maintenance activities by the Federal Government.

Also, the Secretary is authorized to acquire lands for and to construct, operate and maintain water-related public use and access facilities along and adjacent to the Apalachicola River downstream of Jim Woodruff Lock and dam to Apalachicola, Florida. Lands are to be acquired, and facilities constructed, at not more than one site within each county bordering the Apalachicola River.

The Federal and non-Federal share of land acquisition, construction, operation and maintenance associated with the recreation development is to be determined in accordance with the provisions of the Federal Water project Recreation Act of 1965. That Act provides that the non-Federal share is 50 percent of the separable cost of recreation lands and construction, and 100 percent of operation and maintenance.

SECTION 745

This section authorizes the Secretary to implement and maintain interim flood control measures on the Cowlitz and Toutle Rivers, Washington, by dredging or other means determined by the Secretary to be necessary to assure flood protection for developed areas and in the vicinity of such areas against a 100-year flood on the lower Cowlitz River and to reduce sedimentation flow and the chance of blockage on the Columbia River.

As a result of the May 1980 eruption of Mt. St. Helens, an estimated 3 billion cubic yards of debris was deposited in the Toutle River valley. From this amount, approximately one billion cubic yards of sediment is expected to erode and be transported by the Toutle River into the Cowlitz and Columbia Rivers over the next 30 years.

It is estimated that by 1988 four existing major levee systems along the lower 18 miles of the Cowlitz River that provide flood protection to the urbanized areas of Longview, Kelso, Lexington and Castle rock will become ineffective because of sediiment deposition. Continued uncontrolled deposition of sediment in the lower Toutle River will threaten the Burlington-Northern Railroad and Interstate Highway (I-5) bridges by making them susceptible to damage from smaller and smaller flood events.

The possibility of serious flooding along the Cowlitz and Toutle Rivers is great. Section 745 is designed to provide authority for necessary interim measures until a final, long-term solution can be developed.

SECTION 746

This section modifies the project on Milk River for local flood protection, Havre, Montana, to authorize the Secretary to reconstruct or replace, whichever the Chief of Engineers determines necessary and appropriate, the water supply intake weir of the City of Havre, at an estimated cost of $1,400,000.

The Corps of Engineers completed a flood control project at Havre, Montana in 1957. The city obtains its water from the Milk River, using a diversion weir. The flood control project diverted the river around the old weir, so a new weir was constructed by the Corps on the relocated river channel. This weir was used from 1957 until 1968, and had deteriorated badly because of damages caused by flood flows by the latter date.

Section 746 provides the authority to repair or replace the weir, as necessary, to ensure that it is properly designed and functions properly.

SECTION 747

This section modifies the Lower Granite Lock and Dam feature of the Columbia-Snake Rivers navigation system, Oregon, Washington and Idaho, to authorize the Secretary to construct an all-weather surface road in Whitman County, Washington, from Whitman County Road 9,000 in Wawawi Canyon to Lower Granite Dam and the Port of Almota, at an estimated cost of $7,870,000. This segment of road would connect the road built from Clarkston to Wawawai, in connection with the construction of the Lower Granite project, to the Port of Almota, increasing the usefulness of the existing road, and improving access in the project area.

SECTION 748

This section modifies the project for Curwensville Lake, Pennsylvania, to authorize the Secretary to construct, at full Federal expense, a water line with pumps from the Pike Township Water Authority to the Bloomington holding tank in order to provide water for municipal use to the town of Bloomington, Pennsylvania. The estimated cost is $300,000.

In 1965, the Curwensville Dam was constructed by the Corps of Engineers near the town of Bloomington, Pennsylvania. Because of this construction, it was necessary to relocate the town's water well to a location above the dam. In January 1983, it was discovered that the new well had become contaminated; the cause has not yet been determined.

Section 748 authorizes a solution to this problem consisting of the construction of a water line from the Pike Township Water Authority to the Bloomington holding tank.

SECTION 749

This section modifies the project for flood protection, Waterloo, Iowa, to provide that the reconstruction of the bridge on United States Highway 20, and the Lafayette Street Bridge, which are required as a result of the Blowers Creek phase of the project, shall be carried out at Federal expense.

SECTION 750

This section modifies the Mud Lake feature of the project for the Western Tennessee Tributaries, Tennessee and Kentucky, to provide that the requirements of local cooperation shall be to hold and save the United States free from damages due to the construction works and to maintain and operate all the works after completion in accordance with regulations prescribed by the Secretary.

SECTION 751

This section modifies the project for flood control on the Kawkawlin River, Michigan, to provide that the operation and maintenance of the project shall be the responsibility of the United States.

SECTION 752

This section modifies the project for Denison Dam (Lake Texoma), Texas and Oklahoma, to provide for an increased allocation of storage in the reservior for water supply.

The Secretary is authorized to reallocate storage for the purpose of water supply, up to an additional 150,000 acre-feet for municipal, industrial and agricultural water users in the State of Texas and up to 150,000 acre-feet for municipal, industrial and agricultural water uses in the State of Oklahoma. For that portion of the water supply storage reserved for users in the State of Oklahoma, the Secretary may contract, in increments as needed, with qualified individuals, entities, or water utility systems for use within the Red River Basin. For any portion of the water to be utilized outside the Red River Basin, the Secretary is to contract with the Red Ark Development Authority. For the portion of the water storage reserved for users in the State of Texas, the Secretary is to contract, in increments as needed, for 75,000 acre-feet with the Greater Texoma Regional Planning Commission. If either of these bodies lacks the authority to contract for the storage, a reasonable length of time will be extended for the required legislative or statutory authority to be granted.

All contracts entered into by the Secretary under this Section will be in accordance with the Water Supply Act of 1958, which provides for payment to the United States, with interest, over a period not to exceed 50 years, of the cost of the water supply storage.

Nothing in Section 752 is to be construed as amending or altering in any way the Red River Compact.

All benefits associated with the reallocation of storage that can be assigned to the Arkansas-Red River Chloride Control Project or the Red River and tributaries multipurpose study, and any individual projects resulting from the study, are to be reserved for such projects.

SECTION 753

This section modifies the navigation project for the Buffalo Ship Canal, New York, to authorize and direct the Secretary to take such actions as may be necessary to insure that a lift span bridge at South Michigan Avenue over the canal shall be restored, at an estimated Federal cost of $18,000,000.

SECTION 754

This section modifies the project for Jackson Hole, Snake River, Local Protection and Levees, Wyoming, to provide that the operation and maintenance of the project and modifications and additions thereto constructed by non-Federal interests, shall be the responsibility of the Federal Government to the extent that the costs of these items exceed $35,000 in any one year.

SECTION 755

This section modifies the project for navigation for Newport Bay, California, to authorize the Secretary to dredge and maintain Upper Newport Bay to the boundary of the Upper Newport Bay State Ecological Preserve to a depth consistent with the depth in the existing project for Lower Newport Bay.

Newport Bay is one of the major centers of commerical and recreational boating on the southern California coast. Boating activities support a large concentration of related industries providing services and supplies, retail sales, food and lodging.

The Upper and Lower bay areas are integrally related. Sediment from the Upper bay adds significantly to the amount available to the Lower bay. For these reasons the Committee has extended the existing project to the Upper bay.

SECTION 756

This section modifies the project for flood control purposes in the South Platte River Basin in Colorado to provide that the Chatfield Dam and any other authorized Federal improvements in the South Platte River Basin shall be operated in a manner that achieves the authorized level of flood protection, as determined by the Secretary, for the area beginning at the Chatfield Dam and ending at a point 82 miles downstream.

SECTION 757

This section modifies the multipurpose Beaver Lake, Arkansas, project to authorize and direct the Secretary, in cooperation with the Administrator of the Environmental Protection Agency and in consultation with appropriate State and local agencies, to conduct a one-year comprehensive study of the Beaver Lake Reservoir. The purpose of the study is to identify measures which will optimize achievement of the project's purposes while preserving and enhancing the quality of the reservoir's water.

Upon completion of the study, the Secretary is to undetake a demonstration project at the lake to determine the effectiveness of measures identified in the study for preserving and enhancing the quality of the water in the reservoir for current and future uses.

SECTION 758

This section modifies the authorization for the Industrial Canal Lock, Louisiana, to provide that the replacement of the existing lock or the construction of an additional lock shall be accomplished at the location of the existing lock rather than at the Meraux site as originally authorized. The additional costs of lands, easements and rights-of-way acquisition, and relocation of residences, industries and utilities beyond those costs which would have been incurred at the Meraux (Violet) site, including acquisition and relocation costs associated with the relocation, replacement, modification or construction of bridges, shall be borne by the United States. All other costs associated with the relocation, replacement, modification or construction of bridges, up to a maximum of $94,500,000, are to be borne by the United States. Non-Federal public bodies must agree to hold and save the United States free from damages resulting from construction of the bridges and their approaches and, upon completion of construction, to accept title to such bridges and approaches and thereafter to operate and maintain the bridges and their approaches as free facilities.

Subsection (b) of Section 758 directs the Secretary to make a maximum effort to assure the full participation of members of minority groups living in the affected areas in the construction of the facilities authorized by the Section. The Chief of Engineers is directed to report each year to the Congress on the implementation of this Section.

The Industrial Canal lock is the only lock on the Lower Mississippi River connecting it and the Gulf Intracoastal Waterway (GIWW) to other waterways to the east, and particularly to the Mississippi River-Gulf outlet. This lock is antiquated, too small, and has limited dependable life remaining without extensive renovation in the near future. Its failure or closure for a protracted period would seriously disrupt deep- and shallow-draft traffic moving through and within the Port of New Orleans, and consequently adversely impact the Nation's economy and possibly its defense posture.

Traffic through the existing lock exceeded its practical capacity of about 23 million tons in 1971. As traffic continues to increase, waiting time for lockage will increase to the point where alternative modes of transportation or alternate routes will have to be used. The cost of delays at the existing lock by ships and barge tows, as well as the added costs incurred by traffic using either alternate routes or alternative modes of transportation over the 50-

year life of the replacement or additional lock, provides it economic justification.

The Mississippi River-Gulf outlet, a tidewater channel from New Orleans, Louisiana, to the Gulf of Mexico, was authorized by Public Law 455 (84th Congress, 2d sess.), approved March 29, 1956.

This Act authorized replacement of the Industrial Canal lock or an additional lock to be constructed in the vicinity of Meraux, Louisiana. The site selected was at Violet, in the vicinity of Meraux. However, during preconstruction planning, it was determined that construction of a lock at the Violet site was environmentally unacceptable, and that the new lock should be constructed at the same location as the existing lock. Section 758 modifies the original authorization to permit this change in location. Because the relocation costs are higher at the site of the existing lock than at the Violet site, and because bridges will be required to a much larger extent, the additional costs associated with these items will be borne by the United States.

The Maritime Administration, U.S. Department of Commerce, has examined the need for a replacement for the existing Industrial Canal lock and has determined that the new lock should have minimum dimensions of 1,200 feet long, 150 feet wide and 50 feet deep in order to adequately accommodate projected traffic. These dimensions appear reasonable, and the Committee directs the Corps of Engineers to give very careful consideration to a replacement lock having these dimensions.

Because of the depth of the lock, the Federal costs associated with it will be paid from the Port Infrastructure Development and Improvement Trust Fund.

SECTION 759

This section modifies the project for flood protection on the Saginaw River, Michigan, in several respects in order to enable it to better meet present conditions in the area.

The Secretary is directed to first construct the Flint and Shiawassee Rivers portion of the Shiawassee Flats unit of the project, such construction to begin, with available funds, during fiscal year 1984. The Secretary is authorized to reconstruct or relocate, whichever the Secretary determines is necessary, the Curtis Road Bridge at full Federal expense. The project is also modified to include necessary measures to alleviate project-induced flood damages to areas outside the project area and to include such channelization measures in the Shiawassee Flats unit as the Secretary determines necessary for flood control purposes.

For the purpose of determining the non-Federal share of the project, the cost of reconstruction or relocation of the Curtis Road Bridge is not to be included in the cost of the project. The non-Federal share, determined under Title III, is to be determined as a percentage of the cost of the project excluding the Curtis Road Bridge costs.

SECTION 760

This section modifies the navigation project for Brunswick Harbor, Georgia, to incorporate the Georgia Ports Authority's 30-

foot-deep by 300-foot-wide by 8,000-foot-long channel in the South Brunswick River serving Colonel's Island terminal faciltities.

SECTION 761

This section modifies the project for navigation at Houston Ship Channel (Barbour Terminal), Texas, to authorize and direct the Secretary to perform such dredging operations as are necessary to maintain a 40-foot project depth in the Barbour Terminal Channel.

TITLE VIII

WATER SUPPLY

BACKGROUND

Federal law relating to water resources programs and related land management has developed over a period of more than 150 years. It is a dynamic body of law that has continually been amended and modified to address the existing problems and changing priorities of the Nation. From approximately 1850 to 1950, the national emphasis was clearly on economic growth and, in particular, settling and developing the West. During this period, Federal laws were enacted which recognized a national responsibility for the development of our inland navigation system, flood control, irrigation, hydroelectric power development, and other water resources purposes. More recently, since the 1960's, Congress has enacted legislation expanding the objectives of our water resources development program to reflect growing public concern for the environment and protection of our natural resources.

There is growing awareness that our Nation's economic wellbeing depends on an infrastructure underpinning that is deteriorating at an alarming and increasing rate. The Nation's public works investments, at a time when they should be increasing to fight this growing obsolescence, have in reality been decreasing. For example, "America in Ruins," a recent study published by the Council of State Planning Agencies, concluded that, from 1965 to 1977, the Nation's public works investments declined 21 percent measured in constant dollars, 29 percent measured on a per capita basis, and 44 percent where measured against the value of the Gross National Product.

The Committee is extremely concerned about this situation, especially as it relates to the need to expand, improve, and rehabilitate our nation's water supply systems. These water supply needs are no less severe than other infrastructure needs involving roads, bridges, railroads, and other basic facilities. For instance, leakage from aging distribution systems is costing New York, Boston, Buffalo and other cities as much as one-third of their water supplies between reservoirs and faucets. This not only needlessly wastes a valuable natural resource but it also contributes to reducing revenues from usage that could be used to pay for new systems.

A 1980 report prepared for an intergovernmental task force by the Urban Water Supply Subcommittee led by the Secretary of the Army found that the 756 urban areas with more than 50,000 persons will need between $75 billion and $110 billion to maintain and improve their water systems in the next 20 years. The report also found that as many as one-fifth of these communities may not be able to fund water system investment requirements from their own resources. This was estimated to be true, even assuming that water rates could and would be doubled to pay for the required investments, because of enormous pressure on capital markets. The Congressional Budget Office, extrapolating to all community systems from the 1980 report data, suggests that total replacement and rehabilitation needs Nationwide could run as high as $100 billion to $160 billion by the year 2000.

The Second National Water Assessment, prepared in 1978 by the Water Resources Council under the authority of the Water Resources Planning Act of 1965, Public Law 89-80, projected water use and supply through the year 2000 by region and subregion. Using 1975 as its base year, the Assessment results show that nationally the country will have an adequate supply of water from both surface and underground (groundwater) sources to meet its needs through the year 2000. However, localized problems of inadequate surface water supply were identified in all of the Nation's 21 water resources regions. Seventeen subregions either have now or are expected to have a serious problem of inadequate surface water supply by the year 2000. Groundwater overdrafting—withdrawing water faster than it is being replenished—was also found to be a major problem. It was reported to be extensive in 8 subregions and moderate in 30 other subregions.

Groundwater provides approximately 50 percent of the drinking water in the United States. The contamination of this vital supply is a major National concern, and efforts to prevent contamination, to provide safe supplies, and to clean contaminated groundwater must be encouraged and expanded.

Our Nation desperately needs to start addressing these critical problems and investing more in their solutions. Water is not only essential to life itself—it is the crucial lifeblood of our Nation's farms and factories and the overall dynamics of our National economy.

Title VIII is intended to begin to address this major National need. It does so in two significant respects. First, it establishes authority in the Secretary of the Army, acting through the Chief of Engineers, to make low-interest loans for water supply rehabilitation and conservation. Secondly, it authorizes the Corps of Engineers to survey, plan and recommend to the Congress for construction of single purpose water supply projects.

SUBTITLE A—LOAN PROGRAM

SECTION 801

Section 801 provides that Subtitle A may be cited as the "Water Supply Rehabilitation and Conservation Act of 1983".

SECTION 802

Section 802 sets forth Congressional findings related to the loan program established in Subtitle A. Specifically, Congress finds in Section 802 that:

many of the Nation's water supply systems are deteriorated;

many existing municipal and industrial water supply systems are unable, for lack of necessary statutory or other authority, to be assisted by any Federal water development agency;

certain regions of the Nation are facing serious water supply problems;

aging and deteriorating water supply systems are causing large quantities of water to be wasted;

efforts to rejuvenate the Nation's older cities and remove impediments to economic growth should include modernizing existing water supply systems;

many water supply systems have experienced difficulty in obtaining capital necessary to accomplish repairs, rehabilitations, expansions, and improvements required for efficient and reliable operation;

there is a national need to rehabilitate and upgrade existing water supply systems, particularly when viewed in light of historic and continuing Federal involvement in meeting many other water supply needs;

it is essential to promote water conservation wherever the Federal Government is involved in providing water supply; and

encouraging the use of low-flow devices in new construction, improving metering and rate schedules and leak detection programs, and adopting other water conservation methods save water and energy.

The Committee recognizes that the development of adequate revenue for operating and capital needs of water supply systems, both public and private, depends on adequate rate strucuture and access to long-term capital investment at a reasonable interest rate. The adequacy of the rate structure is a local responsibility which the Committee does not intend to address in this legislation except to assure the security of the federal loan and the proper maintenance of the project for which the loan is made. The Committee, in fact, encourages reliance on local rates as the historic and necessary basis for the provision of local water supply. However, the access to reasonable interest rates for long-term capital needed for rehabilitation, expansion and improvements has been a problem for many systems. The intention of this Title is to provide a supplement to local bonding and other sources of capital and not replace or discourage private investment in local water utilities through federal credit allocation.

SECTION 803

Section 803 contains definitions frequently used in Subtitle A. They are as follows:

(1) The term "expansion", as used with respect to a water supply system, means the installation of water supply facilities necessary to increase capability or efficiency of the water supply system.

(2) The term "improvement", as used with respect to a water supply system, means any activity other than rehabilitation designed to improve service reliability or efficiency of the water supply system.

(3) The term "rehabilitation", as used with respect to a water supply system, means the repair or replacement of components or facilities required to restore service reliability or efficiency of the water supply system.

(4) The term "State" means the 50 States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the Virgin Islands, the Trust Territory of the Pacific Islands, and the Northern Mariana Islands.

(5) The term "water supply system" means the facilities used in the production and pumping of water for consumption (including, but not limited to, water storage, desalination, and other collection and purification techniques), water treatment facilities (other than sewage treatment facilities), and the water distribution and conveyance facilities used to provide water for municipal and industrial purposes.

SECTION 804

Section 804 authorizes the Secretary to make loans to certain public and private operators of water supply systems for purposes of repairing, rehabilitating, expanding, or improving such systems.

The Committee intends that loans made available to public and private water suppliers under this Title may be used for project costs including engineering, design and real property necessary for the project, as well as construction costs. Engineering shall include detailed designs, plans, and specifications and all other traditional technical services incident to the design and construction of a water supply system.

Subsection (a) provides that loans may be made to (1) State or local governmental borrowers and (2) private borrowers whose rates and services are subject to state regulation. Loan recipients must operate a water supply system and may only use the loan for the repair, rehabilitation, expansion, or improvement of their respective water supply systems.

The terms "repair" and "rehabilitation" do not include activities which are in the nature of maintenance activities. These terms include only those items which would be considered capital expenditures. Water suppliers continue to be responsible on a current basis for those items of expense that are necessary for maintaining their systems in good repair from year to year.

The Committee would like to emphasize that, under Section 804(a)(2), private or investor-owned water suppliers may also apply for loans pursuant to this provision. About a quarter of the American population is served by investor-owned companies. Subtitle A gives appropriate recognition to these private concerns. These investor-owned water suppliers are regulated not only by the U.S. Environmental Protection Agency with respect to the quality of the water they provide, but also by State public utility commissions with respect to the rates they charge and the service levels they must assure. These factors ensure an adequate supply of drinking water at reasonable costs, the physical integrity of their supply systems and their sources of water.

It is the intent of the Committee that loans be extended to any water supplier who meets the requirements of Subtitle A and there shall be neither discrimination nor favoratism based on the mere fact of public or private ownership.

Subsection (b) provides that, in general, the amount of any loan made by the Secretary is limited to 80 per centum of the cost of the water supply project for which the loan is being made. This 80 per centum ceiling can only be exceeded (1) for projects to serve remote rural areas or (2) in other instances where the Secretary determines that a loan for more than 80 per centum of project costs is appropriate for economic reasons. For purposes of determining the permissible amount of any loan, the cost of an eligible water supply project shall include, but not be limited to, whatever costs of (1) engineering, (2) design, and (3) acquisition of water rights, lands, easements, and rights-of-way are necessary to carry out the project. Subsection (b) also provides in paragraph (2) that, for any fiscal year, no more than $40 million may be lent to any operator of a water supply system and no more than $80 million may be lent for water supply projects in any one State.

Subsection (c) prohibits loans from being made for any purpose not related to water supply or water conservation.

Subsection (d) prohibits loans from being made under Subtitle A for the purpose of one water supplier acquiring another water supplier, where the latter serves a population of more than one thousand persons.

Subsection (e) prohibits the making of any loan for a project intended solely to increase the number of persons served by a water supply system.

Subsection (f) establishes procedures and requirements related to the consideration, approval, and authorization of loans. Paragraph (1) requires the Secretary to submit annually to the House Committee on Public Works and Transportation and the Senate Committee on Environment and Public Works a list of all loan applications which have been determined to fulfill all requirements for loans under the program established pursuant to Subtitle A. In addition, the Secretary must provide a detailed summary of all such listed applications and his decision, either for loan approval or loan disapproval, with respect to each application. After receiving the list and accompanying information from the Secretary, the two Committees are required to adopt a resolution listing any loans approved under Subtitle A. This resolution must be adopted prior to deadlines set pursuant to paragraph (1): not later than 270 days after date of enactment of the bill for the Secretary's first submission and not later than May 15 of each year thereafter for subsequent submissions. With the exception of the sixteen loans authorized by Section 813 of the bill, no appropriation may be made for any Subtitle A loan which has not been approved by a resolution adopted by the two Committees. Once properly approved and authorized for appropriations, a loan is automatically deauthorized pursuant to paragraph (2) if no funds have been obligated for the loan during the 5-year period beginning on the date of approval of the loan by the Committees.

SECTION 805

Section 805 sets forth the requirements for loan applications under Subtitle A.

Subsection (a) requires each applicant for a loan to submit an application as prescribed in regulations promulgated by the Secretary. Each application must be accompanied by a payment of one per centum of the loan requested, up to a maximum payment of $10,000.

Subsection (b) provides that any application for a Subtitle A loan must include, at a minimum, (1) a detailed plan and cost estimate for the project, (2) a demonstration that the applicant holds or is able to acquire necessary land and water rights, (3) a showing that the applicant is able and intends to finance the portion of the cost of the project not covered by the loan and (4) a description of the water supply improvements the proposed project will make.

Subsection (c) provides that loans may only be made under authority of Title VIII for projects determined by the Secretary to be technologically feasible and a reasonable financial risk.

Subsection (d) requires the Secretary, in administering the loan program established by Subtitle A, to give priority to those water supply systems which are polluted, contaminated, or threatened with pollution or contamination, to such an extent that they present a potential danger to human health.

SECTION 806

Section 806 provides that, upon approval or disapproval of a loan by the Secretary, the Secretary shall repay the applicant the amount by which the payment accompanying the application under Section 805 exceeds the costs incurred in processing the application.

SECTION 807

Section 807 establishes a number of requirements related to water conservation that must be met by an applicant as a precondition to receiving a water supply loan under Subtitle A.

Subsection (a) provides that, before the Secretary may make a loan to a water supply system operator, the Secretary must make a determination that the applicant operator will, before completion of the proposed project and to the best of the operator's ability, implement a locally suitable water conservation program at least equivalent to a model water conservation program as defined in Subsection (b).

Subsection (b) defines the term "model water conservation program" to include the following: (1) encouraging each community served by the water supply system to establish plumbing codes which promote water conservation in new construction; (2) utilizing, to the extent feasible and appropriate, water meters which promote water conservation; (3) establishing water rate schedules which encourage water conservation; (4) providing a comprehensive leak detection and repair program for water supply systems; (5) making public information available on home and business water conservation techniques and benefits; and (6) developing a drought contingency plan.

SECTION 808

Section 808 requires an agreement between the Secretary and each person to whom a loan is made under Subtitle A. This agreement must contain provisions covering the amount of the loan, the loan's interest rate, the repayment period, and other necessary provisions to insure repayment.

Under Section 808, each agreement entered into between the Secretary and the person to whom a loan is to be made must include at least the following terms: (1) the maximum amount of the loan to be made and the time and method of making funds available under the loan; (2) an interest rate for the loan determined in accordance with Section 301(b) of the Water Supply Act of 1958 (72 Stat. 319; Public Law 85-500); (3) a computation of interest in accordance with such Section 301(b); (4) a repayment period and a plan of repayment of the sums lent and interest determined in accordance with such Section 301(b); and (5) such provisions as the Secretary shall deem necessary or proper to provide assurance of and security for prompt repayment of the loan and interest, including a provision that the operator of the water supply system shall maintain adequate rates in order to be reasonably expected to meet its obligations under the agreement and to maintain, repair, and rehabilitate the project for which the loan is made.

The interest rate for the loan is to be determined in accordance with Section 301(b) of the Water Supply Act of 1958. This rate is determined by the Secretary of the Treasury, as of the beginning of the fiscal year in which construction is initiated, on the basis of the computed average interest rate payable by the Treasury upon its outstanding marketable public obligations, which are neither due nor callable for redemption for fifteen years from date of issue.

SECTION 809

Section 809 provides that loan application payments and loan repayment, including interest, shall be deposited in the general fund of the Treasury.

SECTION 810

Section 810 authorizes the Secretary to make a loan for more than 80 per centum of a water supply project's cost where the project will serve a remote rural area or where the Secretary determines that a loan for more than 80 per centum of such project's cost is appropriate for economic reasons.

SECTION 811

Section 811 requires the Secretary to issue regulations and take whatever other actions are necessary to carry out the objectives of Subtitle A.

SECTION 812

Section 812 authorizes annual appropriations for Subtitle A of $800 million per Fiscal Year for Fiscal Years 1984 through and including 1987, and such sums as may be necessary for each fiscal year thereafter.

SECTION 813

This section authorizes a number of water supply projects to receive loans under Subtitle A. The Committee has received information with respect to each of these projects concerning the need for the water supply system expansion, improvement, and rehabilitation to be addressed under authority of Subtitle A.

Section 813 does not eliminate the need for any of the projects authorized in the section to comply with all of the applicable requirements established pursuant to Subtitle A.

The following water supply projects are authorized to receive loans under the subtitle:

(1) Treatment, conveyance, distribution, and pumping facilities for Buffalo, New York, at an estimated cost of $20,000,000;

(2) Treatment, conveyance, distribution, and pumping facilities for Berlin, New Hampshire, at an estimated cost of $10,000,000;

(3) Treatment, conveyance, distribution, and pumping facilities for Rochester, New Hampshire, at an estimated cost of $10,000,000;

(4) Treatment, conveyance, distribution, pumping and storage facilities for the Islands of Saint Thomas, Saint Croix, and Saint John, Virgin Islands, at an estimated cost of $35,000,000;

(5) Conveyance, distribution, pumping, and storage facilities for Dupage County, Illinois (Dupage County Commission), at an estimated cost of $280,000,000;

(6) Conveyance facilities (Third Water Tunnel, First Stage) for New York City, at an estimated cost of $220,000,000;

(7) Treatment, conveyance, distribution, pumping, and storage facilities for Fort Smith and Van Buren, Arkansas, at an estimated cost of $25,000,000;

(8) Treatment, conveyance, distribution, production, pumping, and storage facilities for American Samoa, at an estimated cost of $20,000,000;

(9) Treatment, pumping, and conveyance facilities for William H. Harsha Lake, Ohio River Basin, Ohio, at an estimated cost of $18,400,000;

(10) Treatment, conveyance, distribution, and pumping facilities for Totowa, New Jersey (Passaic Valley Water Commission), at an estimated cost of $25,000,000;

(11) Conveyance, pumping, and distribution facilities for Jersey City, New Jersey, at an estimated cost of $15,000,000;

(12) Treatment, conveyance, pumping, distribution, production, and storage facilities for Rockaway Township, New Jersey, at an estimated cost of $10,000,000;

(13) Treatment, conveyance, pumping, distribution, production, and storage facilities for Falmouth, Kentucky, at an estimated cost of $2,500,000;

(14) Treatment, distribution, pumping, and storage facilities for the Borough of Ford City, Pennsylvania, at an estimated cost of $1,600,000;

(15) Treatment, conveyance, distribution, pumping, and storage facilities for Tucson, Arizona, at an estimated cost of $50,000,000; and

(16) Conveyance, pumping, and distribution facilities for Boston, Massachusetts, at an estimated cost of $86,000,000.

SUBTITLE B—WATER SUPPLY PROJECTS

SECTION 851

Subsection 851(a) declares that there is a national interest in economically conserving existing water supplies and in economically developing new supplies through Federal participation in the repair, rehabilitation, and improvement of water supply systems and through Federal construction of single and multiple purpose water supply projects.

Subsection 851(b) authorizes and directs the Secretary, in carrying out a policy designed to encourage assurance of adequate supplies and more efficient use of water, to survey, plan, and recommend to the Congress two types of projects needed to meet existing and anticipated water supply needs. These two types of projects include (1) projects for the repair, rehabilitation, expansion, and improvement of water supply systems and (2) single purpose projects for water supply systems or multiple purpose projects which include water supply as one of the project purposes. The subsection also provides that no appropriation is to be made for any water supply project survey unless appropriations for the survey have been approved by resolutions adopted by the House Committee on Public Works and Transportation and the Senate Committee on Environment and Public Works.

Subsection 851(c) requires that a project's non-Federal interests must provide necessary lands, easements, and rights of way for any project which results from a subsection 851(b) survey. Where the value of the project's lands, easements, and rights of way is less than 20 per centum of project costs allocable to water supply, an amount equal to the difference must be paid by the non-Federal interests to the Secretary before construction of the project. Where the value of the project's lands, easements, and rights of way is estimated, before construction begins, to exceed 20 per centum of project costs allocable to water supply, the Secretary must—upon request of the project's non-Federal interests—acquire lands, easements, and rights of way having a value equal to the amount by which the estimate exceeds the 20 per centum figure. Subsection 851(c) also provides that a project's non-Federal interests must repay to the United States, over a period not to exceed 50 years, 80 per centum of project costs allocable to water supply, with interest determined in accordance with section 301(b) of the Water Supply Act of 1958. Finally, subsection 851(c) authorizes the Secretary to reduce the non-Federal interests' 20 per centum contribution if the project will serve a remote rural area or if the Secretary determines that reducing the amount is appropriate for economic reasons.

SECTION 852

This section authorizes the Secretary to provide, upon request, technical assistance to public water supply operators in order to identify water supply problems and to develop measures for repair, rehabilitation, expansion, and improvement of public water supply systems. This authority is to be used only when the Secretary determines that a public water supply operator cannot utilize the services of the private sector for economic or other reasons.

SECTION 853

Section 853 directs the Secretary to conduct a study of existing Corps of Engineers projects for the purpose of evaluating the feasibility of using any of the projects for water supply on an interim or permanent basis. Under the section, the Secretary is given two years to conduct the study and report his results, with recommendations, to the Congress.

SECTION 854

This section authorizes the Secretary to design and construct a water supply treatment plant and a regional conveyance system from Lake Arcadia to Edmund, Oklahoma. The project is estimated to cost $12,000,000. The Secretary is required to acquire and provide to the project's non-Federal interests any lands, easements, and rights of way necessary for the project. Before construction begins, the non-Federal interests must pay to the Secretary—either in cash or in the value of transferred lands, easements, and rights of way—an amount equal to 20 per centum of the project's estimated total cost, with the remaining 80 per centum of the cost to be repaid for the most part in accordance with the Water Supply Act of 1958. The interest rate applicable to the 80 per centum repayments will be the applicable rate under the existing Lake Arcadia water supply contract between the City of Edmund and the Corps of Engineers.

SECTION 855

Section 855 authorizes and directs the Secretary to construct treatment and conveyance facilities to supply water from Parker Lake to municipalities and rural water systems within the RedArk Development Authority in the State of Oklahoma, at a cost not to exceed $88,636,000. Responsibilities set out in subsection 851(c) concerning up-front contribution and repayment requirements apply to this project.

SECTION 856

This section modifies the project for Caesar Creek, Ohio to authorize and direct the Secretary to construct a public water supply system in accordance with plans prepared by the State of Ohio Department of National Resources. The water supply system would provide for treatment and conveyance to nearby communities of water stored in the Caesar Creek Lake project. This project, constructed by the Corps of Engineers, includes storage for municipal and industrial water supply. This storage will be paid for by non-Federal interests in accordance with the provisions of the Water Supply Act of 1958.

Prior to construction of the water supply system, non-Federal interests must agree to provide necessary lands, easements, and rights-of-way and to operate and maintain the system which will be conveyed to them after completion. They must also agree to repay to the Federal Government, over a period of 50 years, the costs for construction of the system, with interest at the rate specified in section 301(b) of the Water Supply Act of 1958.

SECTION 857

Section 857 requires the Secretary to conduct a two-year State-by-State study, estimating in detail the Nation's need for repair, rehabilitation, and construction of water supply and distribution facilities for municipal and industrial uses. The Secretary is required to cooperate with the States and their political subdivisions, to utilize information provided by the States, and to transmit the completed detailed estimate to Congress not later than two years after the date of enactment of the bill.

Under this section, the Secretary's estimates for needed repairs, rehabilitation, and construction, and the costs thereof, for water supply and distribution facilities are to be made with respect to all the states, and this necessarily includes estimates pertaining to investor-owned, as well as municipally-owned, water suppliers. The Committee anticipates that the investor-owned water suppliers and their representatives will cooperate with the Secretary in the preparation of these estimates.

TITLE IX

NAMINGS

Title IX changes the names of eight water resources projects constructed by the Corps of Engineers and names specific features of two other such projects. Nine of the namings are in honor of individuals associated with the development of water resources, and one is geographical.

Water resources projects are primarily identified by nomenclature used in the report of the Corps of Engineers that served as the basis for each authorization. These names are usually dervied from locations such as towns, rivers, or other features. Occasionally there is local sentiment that another name would be preferable. For instance, an individual may have been active in the development of the project or may be renowned for other reasons, and there may be support for naming the project after this individual.

SECTION 901

This section names the reservoir created by dam numbered 9 on the Arkansas Waterway as the "Winthrop Rockefeller Reservoir." Winthrop Rockefeller, Governor of the State of Arkansas from 1967 to 1971, was a staunch supporter of water resources development in

Arkansas and a leader in promoting the Arkansas Waterway System. In addition to his career in state politics, Governor Rockefeller's life included numerous other pursuits, including six years in the United States Army in World War II, during which he attained the rank of Lieutenant Colonel and was awarded the Purple Heart and the Bronze Star with two Oak Leaf Clusters. Later, at various times throughout his life, Governor Rockefeller served as Director of Rockefeller Center, Incorporated; Chairman of the Board of Colonial Williamsburg, Incorporated, and Williamsburg Restoration, Incorporated; Chairman of the Arkansas Industrial Development Commission; and as a Trustee of the National Urban League, the Rockefeller Brothers Fund, Loomis School, Vanderbilt University, and the Southwest Center for Advanced Studies, among other prominent positions. His home, Winrock Farm on Petit Jean Mountain, looks down upon the reservoir which is named in his honor by this section.

SECTION 902

This section names Lock and Dam Numbered 4 on the Arkansas Waterway after Emmett Sanders. Mr. Sanders, former Mayor of the City of Pine Bluff, Arkansas, has been a member of the Arkansas Basin Association since its inception. He has served as its president and been a member of the Coordinating Committee from the various States that banded together to seek authorization and funding of the Arkansas River Basin Project. Serving in that capacity for many years, his interest has never diminished and to this day he continues to be very instrumental in assuring the development of the port and harbor facilities in Pine Bluff and in protecting the development which has occurred. Mr. Sanders played a leading role in bringing about the completion of the Arkansas River Waterway System in a timely manner, and he has been recognized by the Chief of Engineers for his work by being awarded the Department of the Army's highest civilian award.

SECTION 903

This section names Lock and Dam numbered 3 on the Arkansas Waterway after Joe Hardin. Mr. Hardin was an active member of the Arkansas Basin Association from its inception in the late 1920's. He was involved in presenting information to the Congress in support of authorization and funding for the Arkansas River Waterway System and spoke many times throughout the river valley seeking support for this development.

SECTION 904

This section names Lock and Dam Numbered 13 on the Arkansas Waterway after former Congressman James W. Trimble. Congressman Trimble served eleven terms in the U.S. Congress, from 1945 to 1967, was a member of the Public Works Committee, and later a Member of the Rules Committee and the House District Committee. Before being elected to the 79th Congress, Congressman Trimble served in the Army during World War I and, as a civilian, served successively as County Clerk, Tax Collector, District Attorney and Circuit Judge in Carroll County, Arkansas. During his time in Congress and before his death in 1972, he was most influential in securing appropriations for the construction of the Arkansas River project and devoted considerable effort to expounding the need for this project and the economic advangages it would bring to the Nation. The lock and dam project, which will be known as the James W. Trimble Lock and Dam, is located in his former district.

SECTION 905

This section names Lock and Dam Numbered 9 on the Arkansas Waterway after Arthur Ormond. Mr. Ormond, of Morrilton, Arkansas, has been a leading member of the Arkansas Basin Association since its inception. He served not only in the Basin Association as president, but also as a member of the five-state Arkansas Interbasin Committee and as a member of the Water Resources Congress. He has made numerous water-related presentations to the Congress seeking project authorizations and appropriations since the early 1940's. Mr. Ormond has been recognized by the Chief of Engineers for his work by being awarded the Department of the Army's highest civilian award. His role has been and will be most influential in the development of the Arkansas Waterway.

SECTION 906

This section renames Grand Traverse Bay Harbor, located in Elmwood Township, Michigan, as Greilickville Harbor. The harbor project was authorized by the River and Harbor Act of 1948, and at that time the authorizing documents designated the project as Grand Traverse Bay Harbor. The Township Board of the Township of Elmwood has adopted a resolution to change this name to Greilickville Harbor. This resolution by the Township Board followed the annual meeting of the residents of Elmwood, held on March 29, 1980, during which the residents by unanimous vote declared their preference for the name of Greilickville Harbor for their Township harbor.

SECTION 907

This section names the harbor at the Port of Hickman, Kentucky, as the Elvis Stahr Harbor, Port of Hickman. This project on the Mississippi River is being named after Judge Elvis J. Stahr, Sr. and his son, Dr. Elvis J. Stahr, Jr., two prominent public figures from Hickman. Judge Stahr was successively County Judge of Fulton County, a member of the Hickman City Council, County Attorney, State Senator, and Circuit Judge. Prior to his death in 1963, Judge Stahr served 19 years as Circuit Judge of the first Judicial District of Kentucky, and he is remembered for his sound decisions, which were rarely reversed on appeal, for his courtesy and fairness to all in his courtroom, and for his notable sense of humor.

Judge Stahr's son and only child, Elvis J. Stahr, Jr., was a graduate "with high distinction" from the University of Kentucky; a Rhodes Scholar with three degrees from Oxford University; a lawyer with a New York law firm; an Infantry officer throughout

World War II, during which he served twenty-six months overseas, attained the rank of Lieutenant Colonel, and was awarded numerous military awards including the Bronze Star with Oak Leaf Cluster, and several awards from the Republic of China; Dean of the College of Law and Provost of the University of Kentucky; Vice Chancellor of the University of Pittsburgh; President of West Virginia University; Secretary of the Army under President John F. Kennedy; President of Indiana University; President of the National Audubon Society; and now, the Washington partner of a San Francisco law firm. His list of honors, which is too lengthy to mention in its entirety, includes honorary degrees from at least 26 colleges and universities, and he has served six Presidents of the United States in a variety of capacities.

SECTION 908

Former Congressman Wilbur D. Mills had a long and distinguished career in the House of Representatives, serving for many years as Chairman of the Ways and Means Committee. Prior to his election to Congress in 1938 and his subsequent sixteen terms in the House, he received a law degree from Harvard University, practiced law in Searcy, Arkansas, and served four years as County and Probate Judge of White County, Arkansas. As a Member of Congress, he was widely recognized as a brilliant and diligent attorney, with an unparalleled knowledge of tax law and fiscal matters by the time he assumed the chairmanship of the House Ways and Means Committee in 1958. From that position he greatly influenced the tax, Social Security, tariff and welfare legislation handled by that Committee.

Congressman Mills was also a strong supporter of water resources development and the inland waterway navigation system and was influential in obtaining authorization and funding for the Arkansas River project during his years in Congress. He was extremely instrumental in assuring that the navigation project was completed in a timely fashion. This section names Dam number 2 on the Arkansas Waterway in his honor.

SECTION 909

This section changes the name of the public access area, on the Tennessee-Tombigbee Waterway, known as the China Bluff access area, to the S.W. Taylor Memorial Park. Mr. S.W. Taylor was an outstanding citizen of Sumter County, Alabama. He served unselfishly in the interest of the people of Sumter County and exemplified during this lifetime the highest and finest qualities of citizenship.

Prior to its sale to the Federal Government by Mr. Taylor's family, China Bluff was part of the old Taylor Plantation and now sits adjacent to the Taylor family cemetery, which will be preserved and appropriately fenced. The bluff offers a scenic overlook of the Gainesville Lake and will be developed by the Corps of Engineers as a recreational area and park.

In a tragic accident in June of 1977, Mr. Taylor drowned at the nearby Gainesville Lock and Dam on the Tennessee-Tombigbee Waterway. His loss was a sad shock to the entire area, and the

Committee feels the naming of this park in his memory is most appropriate.

SECTION 910

This section names the main channel of the project for San Leandro Marina, California, after Jack D. Maltester. Mr. Maltester served as Mayor of San Leandro, California, from 1958 to 1978, following his service on the San Leandro City Council from 1956 to 1958 and earlier service on the City Council in 1948. His varied background in public life also included service on the San Leandro Civil Service Commission and four terms on the Federal Advisory Commission for Intergovernmental Relations, having been appointed to the latter position once by President Johnson, reappointed twice by President Nixon, and again by President Ford. Mr. Maltester has also served as President of the U.S. Conference of Mayors, President of the League of California Cities, and President of the Association of Bay Area Governments. The renaming of the San Leandro Channel in honor of Jack D. Maltester is appropriate in light of his long history of public service, both in San Leandro and nationally.

TITLE X

PROJECT DEAUTHORIZATIONS

BACKGROUND

The Committee has taken a bold first step in Title X to deauthorize a large number of Corps of Engineers water resources projects that are unlikely ever to be constructed in their currently authorized form. More than 300 projects or portions of projects are included in Title X. It has been estimated by the Congressional Budget Office that, assuming these projects would have been funded, Federal outlays will reduced by approximately $17 billion and outlays by non-Federal units of government by approximately $3.1 billion over the period from Fiscal Year 1984 through Fiscal Year 1996.

Since the early 1800's when the Corps of Engineers first began its work to develop and protect the vast potential of our Nation's water resources, Congress has authorized far more projects than could be built with the funding available. For example, large numbers of projects were authorized in the 1930's and 1940's, many of which have never been completely constructed.

The Committee conducted an exhaustive examination of the Corps' backlog of authorized but unbuilt water resources projects. Every such project was reviewed and analyzed in detail, both by the Corps of Engineers as well as by the Committee itself. Hearings were held to receive testimony from interested witnesses, including the General Accounting Office and the Assistant Secretary of the Army for Civil Works, on the subject of the Corps' water resources project backlog. Every Member of Congress was personally notified of all the projects being considered for deauthorization and the views of each Member were thoroughly considered before deauthorization decisions were reached.

As a result of this process, the Committee was able to compile, as a first step, a list of projects, representing almost one-third of the Corps' total backlog, to be deauthorized by Title X. Follow-on efforts will attempt to determine the extent that other projects not included in Title X can also be recommended for deauthorization.

Information provided to the Committee by the Corps of Engineers indicates that there are 980 currently authorized Corps water resources projects. These projects include authorized projects, project modifications that have been separately authorized, and project elements that the Corps has identified as separate projects. They cover the full range of the Corps' civil works responsibilities, including navigation improvement, flood control, hydroelectric power, recreation, municipal and industrial water supply, shore and beach erosion protection, fish and wildlife conservation, and water quality improvement.

The Corps administratively classifies its authorized projects in four categories: Active, in the Budget; Active, not in the Budget; Deferred; and Inactive. The Deferred category is composed of those projects for which a restudy is necessary to determine whether they are economically justified, those for which local interests are currently unable to furnish the required cooperation, or those whose authorized plan could be significantly affected by an authorized survey investigation and, therefore, should not be undertaken pending the outcome of the survey. The Inactive category is composed of those projects which lack economic justification, are not adequate to meet current and prospective needs, are not supported by local interests or which are no longer required because they have been superseded by another project or for other reasons.

Congress has acted on a number of occasions to deauthorize projects that are no longer justified or not desired by local sponsors. In recent years, the primary method of deauthorizing such projects has been through the use of Section 12 of the Water Resources Development Act of 1974 (Public Law 93-251).

Under Section 12, the Secretary of the Army, acting through the Chief of Engineers, annually submits to Congress a list of those projects which he has determined should no longer be authorized. Projects on the list must have been authorized for at least eight years and must have received no funding during the preceding eight years. A project on the list is no longer authorized after 90 days of continuous session in Congress unless, during that period, either the House Committee on Public Works and Transportation or the Senate Committee on Environment and Public Works adopts a resolution providing that the project shall continue to be authorized.

Since the 1974 Act was signed into law, 465 Corps projects have been deauthorized under the Section 12 procedure.

Section 12 has worked well to free the water resources program from its large backlog of projects which cannot reasonably be expected to be constructed. However, the administrative process involved with its implementation is slow. The Committee therefore undertook an examination of projects classified by the Corps as deferred and inactive, and those eligible for deauthorization under Section 12. The views of affected Members of Congress and non-

Federal interests were sought and considered. This process resulted in the projects and project elements included in Title X.

SECTION 1001

This section deauthorizes all or portions of 317 projects. The construction costs associated with these projects are estimated to exceed $11 billion. Only uncompleted portions of projects, not yet under construction, are deauthorized by section 1001.

The projects covered by section 1001 include many which have been classified as either inactive or deferred for further study by the Corps of Engineers, as well as projects which are eligible for deauthorization pursuant to the provisions of section 12 of the Water Resources Development Act of 1974. Also included are projects which are not listed in these categories but which have been authorized for a number of years and are no longer considered to be viable because of changed economic or environmental circumstances, because of a lack of local support, or because they have been superseded by other more feasible authorizations. Descriptions of the projects follow.

ALABAMA RIVER, MONTGOMERY, ALA.

Authorization.—Flood Control Act of 1958.

Description.—The plan, which would have provided protection for an area containing industrial plants, commercial establishments and residences in the north part of Montgomery along the Alabama River, would have included two levees and a floodwall with appurtenant drainage ditches and structures. This project would have protected an area of 1,463 acres from the pre-record flood of April 1886. The interior drainage channels and strucures to be provided would have handled all of the runoff from an area of 3,951 acres. The pumping plant would have operated only when the river was above elevation 127 at the station or above a 19.7-foor state on the U.S. Weather Bureau gage near the lower end of the project before the Jones Bluff Lock and Dam was constructed. This stage would have had an expected frequency of three times a year.

Remarks.—There are no separable elements. The project is in an inactive status due to lack of local support.

ALABAMA-COOSA RIVER BASIN, BIG WILLS CREEK LAKE, ALA.

Authorization.—River and Harbor Act of March 2, 1945, Public Law 14, 79th Congress.

Description.—The Big Wills Creek dam site is located in Etowah County, Alabama, 25 miles above the mouth of the Creek and 8 miles north of Gadsden, Alabama. The 2,740-foot-long dam would have consisted of a concrete spillway 213 feet long with 5 tainter gates 29 feet high and 33 feet wide and concrete non-overflow abutments across the main channel which would have been connected to high ground on both banks by earthfill non-overflow dikes. A powerhouse located in the right bank would have contained one 3,200 kw unit. At maximum power pool elevation, the reservoir would have had in area of 4,870 acres and at minimum power pool elevation, 2,810 acres. About 76,500 acre-feet of storage would have been available between these elevations. Construction of the reservoir would have necessitated the relocation or modification of about 12 miles of county roads. Total clearing would have been performed between elevations 635, 5 feet below minimum power pool, and 662, 2 feet above maximum power pool. The land that would have been required for the reservoir is estimated to be 4,340 acres.

ALABAMA-COOSA RIVER BASIN, CROOKED CREEK LAKE, ALA.

Authorization.—River and Harbor Act of March 2, 1945, Public Law 14, 79th Congress.

Description.—The Crooked Creek Lake project would have been located at mile 137.7 on the Tallapoosa River in an eroded valley section about 8 miles southwest of Wedowee, Alabama. The project would have consisted of a 308-foot-long concrete spillway with six tainter gates 35 feet high and 42 feet wide, and concrete nonoverflow abutments across the main channel which would have been connected by earthfill dikes to high ground on both banks. Two earthfill dikes would have been required in lower saddles on the left bank. Two 33,000 kw units would have been installed in a power plant located in the right bank. Peaking operations of this plant would have caused some daily variation in downstream river states.

The reservoir formed by the dam would have had an area of 3,550 acres minimum power pool elevation and 7,900 acres at maximum power pool elevation. It would have had a usable power storage volume between these elevations of 197,000 acre-feet. Dead storage below minimum power pool elevation would have been 118,000 acre-feet. About 118,000 acre-feet would have been provided for flood storage between elevations 780 and 793, using a plan of induced surcharge.

Construction of the reservoir would have necessitated the relocation or modification of about 17 miles of county roads, 4 miles of Alabama Highway No. 48, and 1 mile of U.S. Highway No. 431. The existing public roads intercepted by the reservoir would have been preserved and utilized wherever practical for public access to the reservoir. Total clearing would have been performed between elevation 740, 5 feet below the minimum power pool and elevation 783, 2 feet above maximum power pool. The land that would have been required for the reservoir is estimated to be 10,300 acres.

ALABAMA-COOSA RIVER BASIN, HATCHET CREEK LAKE, ALA.

Authorization.—River and Harbor Act of March 2, 1945, Public Law 14, 79th Congress.

Description.—The Hatchet Creek project would have been located in Coosa County, Alabama, about 16 miles east of Clanton. The site for this development would have been located 7.7 miles above the mouth of Hatchet Creek, which enters the Coosa River from the left bank, 355.3 miles above the mouth of the Alabama River. The pool of the Alabama Power Company's Mitchell Reservoir extends above the site. The dam would have consisted of a 372-foot-long concrete spillway with seven tainter gates 29 feet high and 44 feet wide across the main channel connected to high ground on both banks by concrete nonoverflow abutments. A power plant with two 22,000 kw units would have been located in the left bank.

At maximum power pool elevation, the reservoir would have covered an area of 11,100 acres. It would have covered an area of 6,600 acres at minimum power pool elevation. The usable power storage between these elevations would have been 255,000 acre-feet. Dead storage would have been 260,000 acre-feet.

Relocations that would have been required include modifications of about 1 mile of Federal Highway No. 231, eight miles of Alabama highway No. 22, and 17 miles of county roads. Complete clearing of the reservoir would have been performed between elevation 435, 5 feet below minimum power pool, and elevation 472, 2 feet above maximum power pool. It is estimated that about 12,800 acres of land would have been required for the reservoir.

ALABAMA-COOSA RIVER BASIN, LITTLE RIVER LAKE, ALA.

Authorization.—River and Harbor Act of March 2, 1945, Public Law 14, 79th Congress.

Description.—This project would have been located in Cherokee and DeKalb Counties, Alabama, about 35 miles northeast of Gadsden, and 20.4 miles above the mouth of Little River. This development would have consisted of a dam and spillway across Little River and a power intake and penstock on the left bank of the reservoir to divert the flow to a power plant located on Culstigh Creek, a tributary of Mills Creek. The 1,074-foot-long dam would have consisted of a spillway 206 feet long across the main channel with four tainter gates 29 feet high and 41.5 feet wide connected to high ground on both banks by concrete non-overflow abutments. The power plant would have had a total installed capacity of 4,500 kw.

At maximum power pool elevation, the reservoir would have had an area of 765 acres and, at minimum power pool elevation, 70 acres. There would have been about 12,300 acre-feet of storage between these elevations for power generation. Dead storage would have been 400 acre-feet.

ALABAMA-COOSA RIVER BASIN, MILLS CREEK LAKE, ALA.

Authorization.—River and Harbor Act of March 2, 1945, Public Law 14, 79th Congress.

Description.—The Mills Creek reservoir project would have been located in Cherokee County, Alabama, on Mills Creek 5.1 miles above its confluence with the Chattooga River. The dam site is about 20 miles west of Rome, Georgia, and 13 miles southwest of Summerville, Georgia. This project would have consisted of a 178-foot-long concrete spillway with four tainter gates 29 feet high and 34.5 feet wide and concrete nonoverflow abutments across the main channel. An earth and rock-fill dike 1,900 feet long would have been required along the rim of the reservoir about 2 miles west of the dam. One 6,100 kw unit would have been installed in a powerhouse in the right bank. This project would have reregulated the flows released for power generation at the Little River development. These flows would have been diverted down Culstigh Creek to the Mills Creek reservoir.

The reservoir would have had an area of 4,520 acres at maximum power pool elevation and 2,670 acres at minimum power pool elevation. The usable power storage between these elevations would have been 89,500 acre-feet. Dead storage would have been 55,000 acre-feet.

Relocations that would have been required include modifications of about 6 miles of county roads. Complete clearing of the reservoir would have been performed between elevation 660, 5 feet below minimum power pool, and elevation 692, 2 feet above maximum power pool. The land that would have been required for the reservoir is estimated to be 5,860 acres.

ALABAMA-COOSA RIVER BASIN, TERRAPIN CREEK LAKE, ALA.

Authorization.—River and Harbor Act of March 2, 1945, Public Law 14, 79th Congress.

Description.—The Terrapin Creek site is located in Cherokee County, Alabama, 12.2 miles above the mouth of Terrapin Creek, 23 miles east of Gadsden, Alabama, and 29 miles southwest of Rome, Georgia. The 625-foot-long dam would have consisted of a concrete spillway 278 feet long with six tainter gates 29 feet high and 37 feet wide connected to high ground on both banks by concrete nonoverflow abutments. A powerhouse located in the left bank would have contained one 2,900 kw unit.

At maximum power pool elevation, the reservoir would have had an area of 1,850 acres and, at minimum power pool elevation, 570 acres. About 23,000 acre-feet of storage would have been available between these elevations for power generation. Dead storage would have been 8,300 acre-feet.

Construction of the reservoir would have necessitated the relocation or modification of about 5 miles of county roads. Total clearing would have been performed between elevation 615, 5 feet below minimum power pool, and elevation 642, 2 feet above maximum power pool. The land that would have been required for the reservoir is estimated to be 2,440 acres.

ALABAMA-COOSA RIVER BASIN, WAXAHATCHEE CREEK LAKE, ALA.

Authorization.—River and Harbor Act of March 2, 1945, Public Law 14, 79th Congress.

Description.—TheWaxahatchee Creek project would have been located 6.5 miles above the mouth of Waxahatchee Creek in Chilton and Shelby Counties, Alabama, about 36 miles southeast of Birmingham. The reservoir of the Alabama Power Company's Lay Dam would have extended above the dam site. The 600-foot-long dam would have consisted of a concrete spillway 253 feet long with five tainter gates 29 feet high and 41 feet wide connected to high ground on both banks by concrete nonoverflow abutments. A powerhouse located in the left bank would have contained one 5,600 kw unit.

The reservoir would have had an area of 3,780 acres at maximum power pool elevation and 2,050 acres at minimum power pool elevation. The reservoir would have provided 43,100 acre-feet of storage for power operations between these elevations. Dead storage would have been 32,500 acre-feet.

Construction of the project would have necessitated the relocation or modification of about 1 mile of the Louisville and Nashville Railroad and 3 miles of county roads. Total clearing would have been performed between elevation 430, 5 feet below minimum power pool, and elevation 452, 2 feet above maximum power pool. The land that would have been required for the reservior is estimated to be 4,730 acres.

ALABAMA-COOSA RIVER BASIN, WEOGUFKA CREEK LAKE, ALA.

Authorization.—River and Harbor Act of March 2, 1945, Public Law 14, 79th Congress.

Description.—This project would have been located in Coosa County, Alabama, about 15.8 miles above the mouth of Weogufka Creek. This creek enters the Hatchet Creek arm of the Mitchell Dam reservoir downstream from the Hatchet Creek site. The dam would have consisted of a 204-foot-long concrete spillway with four tainter gates 29 feet high and 41 feet wide across the main channel connected to high ground on both banks by concrete nonoverflow abutments. A power plant with one 7,200 kw unit would have been located in the right bank.

At maximum power pool elevation, the reservoir would have had an area of 2,550 acres. It would have had an area of 1,600 acres at minimum power pool elevation. The usable power storage between these elevations would have been 50,000 acre-feet. Dead storage would have been 48,000 acre-feet.

Relocations that would have been required include modification of about 4 miles of county roads. Total clearing would have been performed between elevation 540, 5 feet below minimum power pool, and elevation 572, 2 feet above maximum power pool. It is estimated that about 3,200 acres of land would have been required for the reservoir.

ALABAMA-COOSA RIVER BASIN, YELLOWLEAF CREEK, ALA.

Authorization.—River and Harbor Act of March 2, 1945, Public Law 14, 79th Congress.

Description.—This reservoir would have been located in Shelby County, Alabama, 10.1 miles above the mouth of Yellowleaf Creek, and about 22 miles southeast of Birmingham. The project would have consisted of a 204-foot-long concrete spillway with four tainter gates 29 feet high and 41 feet wide and concrete nonoverflow abutments across the main channel. A powerhouse located in the left bank would have contained one 3,400 kw unit.

At maximum power pool elevation, the reservoir would have had an area of 4,800 acres, and, at minimum power pool elevation, 2,900 acres. About 39,700 acre-feet of storage between these elevations would have been available for power generation. Dead storage would have been 37,600 acre-feet.

Construction of the reservoir would have necessitated the relocation or modification of about 23 miles of county roads. Total clearing would have been performed between elevation 460, 5 feet below minimum power pool, and 477, 2 feet above maximum power pool. It is estimated that about 5,960 acres of land would have been required for the reservoir.

ALABAMA-COOSA RIVER BASIN, BIG CANOE CREEK LAKE, ALA.

Authorization.—River and Harbor Act of March 2, 1945, Public Law 14, 79th Congress.

Description.—This reservoir would have been located in St. Clair and Etowah Counties, Alabama, 5 miles above the mouth of Big Canoe Creek and 10 miles southwest of Gadsden. The 920-foot-long earthfill dam would have extended across the main channel to high ground on both banks. A concrete spillway 228 feet long with 5 tainter gates 29 feet high and 36 feet wide would have been located in the left bank adjacent to the dam.

The reservoir would have had an area of 14,400 acres at maximum power storage pool elevation and 2,000 acres at minimum power storage pool. About 189,000 acre-feet of storage between these elevations would have been provided for stream flow regulation. Dead storage would have been 15,000 acre-feet.

Construction of the reservoir would have required the relocation or modification of portions of Interstate Highway No. 59, about 4 miles of U.S. Highway No. 441, and 8 miles of county roads. Complete clearing of the reservoir would have been performed between elevations 505.5, 5 feet below minimum power storage pool and elevation 537, 2 feet above maximum power storage pool. It is estimated that about 18,200 acres of land would have been required for the reservoir.

MYERS CHUCK HARBOR, ALASKA

Authorization.—River and Harbor Act of March 2, 1945, Public Law 14, 79th Congress.

Description.—The project would have consisted of a rock-mound breakwater, 430 feet long.

NOME HARBOR, ALASKA

Authorization.—River and Harbor Act of August 30, 1935, Public Law 409, 74th Congress.

Description.—The project would have provided for the extension of the east jetty 616 feet and the west jetty not more than 216 feet. The original project was adopted August 1917 and completed in 1923. It consisted of an east jetty 335 feet long, a west jetty 460 feet long, a 75-foot-long channel from Norton Sound through the Snake River, ending in a 250-foot-wide and 600-foot-long basin at the mouth of Bourbon and Dry Creeks. P.L. 409 authorized modification of the existing project to provide for extension of the jetties as described above. Due to extensive storm and ice damage, the original jetties were reconstructed with concrete and steel to modified lengths of 240 and 400 feet. Because of the reconstruction, which was completed in 1940, the jetty extensions authorized in 1935 are no longer necessary. Construction of the seawall, which was authorized in the June 16, 1948 Public Law was completed in 1951.

SKAGWAY RIVER, ALASKA

Authorization.—River and Harbor Act of June 20, 1938, Public Law 685, 75th Congress; and section 10 of the Flood Control Act of 1946.

Description.—The original project included a 6,700 foot training dike and a 1,800 foot breakwater. Also authorized but later deleted were additional dikes and groins. In the 79th Congress a modification was authorized to provide for restoration of the original project breakwater to original standards, construction of a 300-foot extension to the breakwater, construction of two groins, and reconstruction of the dikes. This modification was not constructed. Part of the proposed extension to the breakwater was incorporated into a fill constructed by the White Pass and Yukon Railroad in 1968.

BAYOU BARTHOLOMEW, ARK. AND LA.

Authorization.—Flood Control Act of 1966.

Description.—The Flood Control Act of 1966 authorized a general comprehensive plan for flood control and other purposes in the White River Basin, Arkansas and Missouri. The plan consisted of six lakes, one of which was the Bell Foley project on the Strawberry River. The project purpose was for flood reduction. The plan of improvement included an embankment dam with a controlled spillway.

CROOKED CREEK LAKE LEVEE, ARK.

Authorization.—Flood Control Act of 1968.

Description.—The Crooked Creek study responded to a resolution adopted by the Committee on Public Works of the U.S. Senate on May 16, 1961 requesting the Board to review the reports on White River and Tributaries, Missouri and Arkansas, published as House Document No. 102, 73rd Congress, 1st session, to determine whether flood protection on Crooked Creek and Tributaries was advisable. The recommended project consisted of dam and reservoir for flood control, water supply and recreation, and raising the existing levee and floodwall.

GILLETT NEW LEVEE, LOWER ARKANSAS RIVER, NORTH BANK, ARK.

Authorization.—Flood Control Act of May 15, 1928, Public Law 391, 70th Congress; Flood Control Act of June 22, 1936, Public Law 738, 74th Congress; and the Flood Control Act of 1946.

Description.—The Gillett New Levee was envisioned as the authorized lower extension of the completed north bank Arkansas River levee system. It would have tied into high ground at project grade in the vicinity of Gillett, Arkansas, and would have been the last item of new levee authorized to be constructed.

MURFREESBORO RESERVOIR, PIKE COUNTY, ARK.

Authorization.—Flood Control Act of 1950.

Description.—The authorized project consisted of a concrete dam about 105 feet high and a little more than 1,000 feet long with a flood control pool of about 3,200 acres to be located about 2 miles above the mouth of Muddy Fork, a tributary of the Little Missouri River.

ALHAMBRA CREEK, CALIF.

Authorization.—Flood Control Act of 1968.

Description.—The project was to provide for channel improvements within the City of Martinez, a division conduit, and channel improvements within the county.

ALISO CREEK DAM, SANTA ANA RIVER BASIN, ORANGE COUNTY, CALIF.

Authorization.—Flood Control Act of June 22, 1936, Public Law 738, 74th Congress.

Description.—The dam would have been an earthfill structure, 500 feet in length, 75 feet in height, located 14 miles upstream from the Aliso Creek mouth. Aliso Creek Dam is part of the Santa Ana River Basin (and Orange County) project which comprises several dams.

BEAR RIVER, CALIF.

Authorization.—Section 201 of the Flood Control Act of 1965 and approved by resolution of the Committee on Public Works and Transportation of the House of Representatives, adopted September 23, 1976, and resolution of the Committee on Environment and Public Works of the Senate, adopted October 1, 1976.

Description.—The project was to be located in drainage areas tributary to Bear River near the communities of Linda and Olivehurst, California, and would have provided for about 7 miles of levee and channel work, pumping facilities for local drainage; and associated trail-based recreation facilities.

BUTLER VALLEY DAM, MAD RIVER, CALIF.

Authorization.—Flood Control Act of 1968.

Description.—The project would have been located on the Mad River in Humboldt County in the northwestern part of the State of California, about 23 miles east of Eureka and 290 miles north of San Francisco. The current project plan was to provide for construction of a rockfill dam about 350 feet high and 1,850 feet long, creation of a reservoir with gross storage capacity of about 460,000 acre-feet, including seasonal dual use of 25,000 acre-feet of storage for flood control, water supply and recreation and fish and wildlife.

EEL RIVER, CALIF.

Authorization.—Flood Control Act of 1965.

Description.—The Eel River drains an area of approximately 3,600 square miles including portions of Humboldt, Mendocino, Trinity, Glen and Lake Counties, California, and empties into the Pacific Ocean about 15 miles southwest of Eureka, California. The proposed plan of improvement for the delta area was to provide for: modification of existing levees and construction of new levees to control flood flows in the lower reaches of the Eel and Salt Rivers; related interior drainage works; and a boat-launching ramp with appurtenant facilities for recreation.

SIERRA MADRE WASH, LOS ANGELES COUNTY DRAIN AREA, CALIFORNIA

Authorization.—Flood Control Act of August 18, 1941, Public Law 228, 77th Congress.

Description.—The project would have provided for concrete channelization of about 0.8 mile of Sierra Madre Wash.

MONTEREY HARBOR, CALIF.

Authorization.—River and Harbor Act of March 2, 1945, Public Law 14, 79th Congress.

Description.—The project was to consist of a breakwater 1,700 feet long. Some dredging has been completed except that a barrier groin/sandtrap and some minor dredging have not been implemented. The plan would have provided for enlargement of the protected harbor area by construction of two rubble-mound breakwaters, a detached north breakwater about 3,300 feet long located parallel to, and approximately 2,000 feet from the shoreline, and an east breakwater about 1,100 feet long extending northerly from the shoreline. Two entrances, each approximately 400 feet wide, at mean lower low water, were to be located near the northeast corners of the harbor.

NAPA RIVER BASIN, CALIF.

Authorization.—Flood Control Act of 1965.

Description.—The project was to be located in and near the City and County of Napa, California, about 40 miles north of San Francisco. The 89th Congress authorized a project providing for channel enlargement and floodwalls or levees for 10.7 miles. Recreation facilities were to be constructed along the channel and a railroad bridge was to be relocated. This plan was modified by the 94th Congress to provide lands for fish and wildlife mitigation.

NAPA RIVER, CALIF.

Authorization.—River and Harbor Act of July 24, 1946, Public Law 525, 79th Congress.

Description.—The project was to consist of about 12 miles of channel 15 feet deep and 100 feet wide between Mare Island and Asylum Slough, thence about 4 miles of channel 10 feet deep, 75 feet wide to 3rd St. in Napa, California. The authorized dredging project was completed in 1950. However, the construction of dikes and revetments was not completed at that time.

OLD RIVER, SAN JOAQUIN COUNTY, CALIF.

Authorization.—River and Harbor Act of August 26, 1937, Public Law 392, 75th Congress.

Description.—Old River is located on the line between Contra Costa County and San Joaquin County about 14 miles west of the city of Stockton, California. Old River is the most westerly branch of the interconnecting tidal channels into which the San Joaquin River divides in crossing its delta. The project would have provided for a channel along Old River from its mouth near Venice Island to Lammers Ferry Road; a side channel at Orwood; a channel in Grant Line Canal; a channel through Doughty Cut to the Holly Sugar factory; a channel from Doughty Cut to the head of Old River; and entrances to Fabian-Bell Canal. In 1939, construction was initiated and about 28 percent of the construction was completed. The remaining work includes a side channel at Orwood; completion of the project channels from the mouth of Old River to Lammers Ferry Road and from Crocker Cut to the Holly Sugar factory.

SAN JUAN DAM, SANTA ANA RIVER BASIN, ORANGE COUNTY, CALIF.

Authorization.—Flood Control Act of June 22, 1936, Public Law 738, 74th Congress.

Description.—The plan of improvement provided for an earthen dam 2,150 feet long with a maximum height of 103 feet above the streambed. The drainage area is 104 square miles. San Juan Dam would have been part of the Santa Ana River Basin and Orange County project, which comprises several dams.

TRABUCO DAM, SANTA ANA RIVER BASIN, ORANGE COUNTY, CALIF.

Authorization.—Flood Control Act of June 22, 1936, Public Law 738, 74th Congress.

Description.—The project wash to have been an earthfill dam located on Arroyo Trabuco 7 miles upstream of the river mouth. It would have been 1,600 feet in length and 97 feet in height. Trabuco Dam would have been part of the Santa Ana River Basin and Orange County project, which comprises several dams.

UNIVERSITY WASH AND SPRING BROOK, CALIF.

Authorization.—Section 201 of the Flood Control Act of 1965, Public Law 298, 89th Congress; and approved by resolution of the Committee on Public Works of the House of Representatives, adopted December 15, 1970, and resolution of the Committee on Public Works of the Senate, adopted June 22, 1971.

Description.—The plan would have provided for about 5 miles of improved channel along University Wash and Springbrook. Also to be included in the project were beautification features.

LAKEPORT LAKE, CALIF.

Authorization.—Flood Control Act of 1965.

Description.—The project would have been located on Scotts Creek 4 miles west of the city of Lakeport, California. The plan provided for construction of a 203-foot high dam, creating a gross storage capacity of 55,000 acre-feet for flood control, municipal water supply, irrigation, general recreation, and fish and wildlife. The plan also included about 7 miles of downstream levees and channel improvements on Scotts Creek below Scotts Valley in Lake County.

COLUSA TO RED BLUFF, SACRAMENTO RIVER, CALIF.

Authorization.—River and Harbor Act of August 30, 1935, Public Law 409, 74th Congress.

Description.—The entire project would have provided a channel 10 feet deep at mean lower low water, 150 to 200 feet bottom width, from Suisun Bay to Sacramento, California, a distance of 60 miles; a channel 6 feet deep at low water between Sacramento and Colusa, a distance of 85 miles; a channel 5 feet deep at low water between Colusa and Chico Landing, a distance of 50 miles; and a channel of such depths as practicable between Chico Landing and Red Bluff, a distance of 53 miles. Work below Sacramento consisted primarily of dredging; work above Sacramento included removal of snags, concentration of the channel by dredging and wing dams, and streamflow regulation by Shasta Reservoir. A separate element of the project provided for a shallow draft channel to a depth of 5 feet at low water between Colusa and Chico Landing, a distance of 50 miles; and such depths as practicable between Chico Land and Red Bluff, a distance of 53 miles.

SAN JOAQUIN RIVER, STOCKTON DEEPWATER SHIP CHANNEL, CALIF.

Authorization.—River and Harbor Act of 1950.

Description.—The project would have provided for the construction of a new turning basin near Rough and Ready Island; the enlargement of Upper Stockton Channel; the construction of 30-foot depth Burns Cut-off Channel around Rough and Ready Island, including construction of a combination rail and highway bridge; and the construction of a new settling basin on the San Joaquin River upstream from its confluence with Stockton Channel.

BOULDER, COLO.

Authorization.—Flood Control Act of 1950.

Description.—The project was to consist of channel enlargement and bank protection on Sunshine Creek from its mouth upstream for about 1,500 feet and on Boulder Creek from the junction of Sunshine Creek downstream approximately 3.5 miles to the Colorado and Southern Railway Bridge. The plan included 1,000 feet of vertical concrete wall above Broadway with the remainder of the channel to be riprapped. Several bridges were also to be altered, removed, or newly constructed.

No action was taken in the Boulder project after authorization, due to a lack of local interest and support. Several related studies of the flooding problem have been conducted since the project was authorized, the most recent of which was a complete flood control reformulation conducted as part of the recent Metropolitan Denver and South Platte River and Tributaries study, which serves as the basis for the Metropolitan Denver project authorized in Section 301(a).

CASTLEWOOD LAKE, DOUGLAS COUNTY, COLO.

Authorization.—Flood Control Act of August 18, 1941, Public Law 228, 77th Congress.

Description.—The project was to consist of a 212-foot-high rolled earthfill dam with an uncontrolled outlet and a concrete spillway. The site is located on Cherry Creek in Douglas County, Colorado, approximately 30 miles south of Denver.

The Flood Control Act of 1941 also authorized Cherry Creek Dam located on Cherry Creek downstream of Castlewood Dam. Construction of Cherry Creek Dam was completed in 1953. Although located on the same stream and authorized by the same flood control act, the two are considered separable projects.

BRIDGEPORT HARBOR-BLACK ROCK HARBOR, CONN.

Authorization.—River and Harbor Act of 1958.

Description.—The uncompleted project features provide for construction of two-rubble-mound breakwaters at the entrance to Black Rock Harbor and dredging a 28-acre anchorage 6 feet deep in Burr and Cedar Creeks at the head of Black Rock Harbor. The authorization cited above provided for deepening the main ship channel and turning basin at Bridgeport to 35 feet—which was completed in 1963—as well as the still unconstructed breakwaters and 6-foot-deep anchorage.

CONNECTICUT RIVER BELOW HARTFORD, HARTFORD, CONN.

Authorization.—River and Harbor Act of 1950.

Description.—The plan called for provision of an anchorage area, 6 feet deep and 6.5 acres in area, at Hamburg Cove at the head of the existing access channel.

MYSTIC RIVER, NEW LONDON COUNTY CHANNEL, CONN.

Authorization.—River and Harbor Act of March 4, 1913, Public Law 429, 62nd Congress.

Description.—The plan provided for a full 100-foot-wide, 12-foot-deep channel extending 4,700 feet from U.S. Route 1 drawbridge to the Mystic Seaport site. Work was essentially completed in 1913, except that the 12-foot channel was dredged only to widths of 80 to 90 feet, rather than to the authorized 100 feet. Subsequent authorizations of the 1945 River and Harbor Act for the overall Mystic River project pertained to work downstream of Route 1 bridge and does not relate to this element.

SILVER BEACH TO CEDAR BEACH, CONN.

Authorization.—River and Harbor Act of 1954.

Description.—The project involved beach widening by placement of sandfill at Walnut Beach and parts of Silver, Myrtle, and Laurel Beaches, plus construction of 11 impermeable groins. Placement of sandfill at Cedar Beach and part of Laurel Beach was completed in 1955. Placement of sandfill at Meadows End and parts of Myrtle and Silver Beaches was completed in 1960. The State has recently requested that the need for beach improvements be reviewed.

STONINGTON HARBOR, NEW LONDON COUNTY, CONN.

Authorization.—River and Harbor Act of 1950.

Description.—The project envisioned dredging a 6-foot-deep anchorage at the northeast end of Stonington Harbor. It also provided for maintaining two breakwater sections in the outer harbor and the 12-foot basin in the inner harbor, dredging of Penguin Shoal at the southwest end of the harbor to a depth of 10 feet—all of which are completed—as well as the unconstructed six-foot-deep anchorage.

THAMES RIVER, NEW LONDON COUNTY, CONN.

Authorization.—River and Harbor Act of March 2, 1945, Public Law 14, 79th Congress.

Description.—The uncompleted feature of the project would have increased channel width in the bend at Long Reach Upper Light (river mile 6.8). The River and Harbor Act of 1935 provided for extension of the existing 25-foot channel in the Thames River between the New London highway bridge and Allyn Point, Ledyard (river mile 5.8) by dredging a channel 25 feet deep and generally 200 feet wide in the 6-mile-long reach between Allyn Point and Norwich with increased width at the bends. The 1945 River and Harbor Act provided for increased channel widening, 20 feet deep and 350 feet wide, opposite the U.S. Navy submarine base at river mile 2.0. All of the work has been completed except for the channel widening at Long Reach Upper Light.

WASHINGTON, D.C. AND VICINITY

Authorization.—Flood Control Act of June 22, 1936, Public Law 738, 74th Congress; and Flood Control Act of July 24, 1946. Public Law 526, 79th Congress.

Description.—The 1946 Act authorized levees and grading in the Lincoln Memorial and Washington Monument area, and grade raisings of sections of Seventeenth Street, N.W., and P Street, S.W. Some of these levees and the P Street grade raising have been constructed.

ATLANTIC INTRACOASTAL WATERWAY, MIAMI TO KEY WEST, FLA.

Authorization.—River and Harbor Act of March 2, 1945, Public Law 14, 97th Congress.

Description.—This project feature involved the segment of the Intracoastal Waterway, Miami to Key West, consisting of a channel 7 feet deep and 90 feet wide from Cross Bank to Key West along a protected inside route. The project for the Intracoastal Waterway, Miami to Key West, has been completed from Miami to Cross Bank, a length of about 63 miles. The remaining segment from Cross Bank to Key West, approximately 32 miles in length, is being deauthorized.

BISCAYNE BAY, DADE COUNTY, FLA. (HURRICANE BARRIER)

Authorization.—Act of June 15, 1955, Public Law 71, 84th Congress.

Description.—The project was to consist of a hurricane barrier levee with ungated navigation openings north of Rickenbacker Causeway. The levee would have been located from a point near Point View to Fisherman's Channel near Fisher Island.

CEDAR KEYS HARBOR, LEVY COUNTY, FLA.

Authorization.—River and Harbor Act of July 5, 1884.

Description.—The element of the Cedar Keys Harbor project being deauthorized consists of the excavation of 1,500 cubic yards from an area known as the "middle ground" within the alignment of the main ship channel. The Cedar Keys Harbor project is complete except for this segment.

BROWARD COUNTY AND HILLSBORO INLET, FLA.

Authorization.—Section 301 of the River and Harbor Act of 1965.

Description.—This deauthorization only covers the navigation feature of the Broward County and Hillsborough Inlet, Florida Beach Erosion Control and Navigation project, which consists of a channel 8 feet deep and 100 feet wide from the Intracoastal Waterway to a point 1,500 feet oceanward in Hillsboro Inlet, thence 10 feet and 150 feet wide to the deep water entrance; and a permanently based floating dredge to maintain the navigation channel and transfer sand across the inlet with a provision for replacement by a trestle-mounted sand-transfer, if necessary. The beach erosion control portion of the project is completed and most of the navigation features have been provided by local interests. The deauthorization does not affect construction or maintenance of the beach erosion control portions of the project.

SEBASTIAN CHANNEL, INTRACOASTAL WATERWAY, JACKSONVILLE TO MIAMI, FLA.

Authorization.—River and Harbor Act of March 2, 1945, Public Law 14, 79th Congress.

Description.—This segment of the Intracoastal Waterway, Jacksonville to Miami, consists of a side channel 8 feet deep and 100 feet wide from the waterway to and including a turning basin 300 feet wide and 600 feet long. The length of project is about 1,800 feet. The Intracoastal Waterway, Jacksonville to Miami, is completed except for this segment.

JACKSONVILLE HARBOR MOORING BASIN, NAVAL, FLORIDA

Authorization.—River and Harbor Act of March 2, 1945, Public Law 14, 79th Congress.

Description.—The uncompleted segments of the Jacksonville Harbor project being deauthorized consist of a channel, 28 feet deep and 590 feet wide, extending from Laura Street to St. Elmo W., Acosta Bridge; a channel and floodway along the south side of Commodore Point; and an approach and mooring basin at the Naval Reserve Armory near the Main Street bridge. The Jacksonville Harbor project is completed except for these segments.

KEY WEST HARBOR, MONROE COUNTY, FLA.

Authorization.—River and Harbor Act of September 19, 1890.

Description.—This segment of the project consists of two uncompleted jetties at the entrance to the northwest channel. The Key West Harbor is completed except for this segment.

MIAMI HARBOR, MIAMI RIVER, FLA.

Authorization.—River and Harbor Act of March 2, 1945, Public Law 14, 79th Congress.

Description.—Being deauthorized are the uncompleted segments of the Miami Harbor project, which include widening the mouth of

Miami River; providing a channel 8 by 20 feet from the mouth of the river to the Intracoastal Waterway, thence, 100 feet wide to Government Cut; and providing a channel 12 by 100 feet from Miami to a harbor of refuge in Palmer Lake. The Miami Harbor project is complete except for these segments.

OKEECHOBEE WATERWAY, MARTIN COUNTY, FLA.

Authorization.—River and Harbor Act of March 2, 1945, Public Law 14, 79th Congress.

Description.—Being deauthorized is an uncompleted segment consisting of a turning basin at Stuart, Martin County. The Okeechobee Waterway Project is complete except for this segment.

OKLAWAHA RIVER, FLA.

Authorization.—River and Harbor Act of March 2, 1907.

Description.—The Oklawaha River project is complete except for the segment being deauthorized, which would have consisted of a channel 6 feet deep from the mouth of river to the head of Silver Springs Run.

PALM BEACH HARBOR, FLA.

Authorization.—River and Harbor Act of June 20, 1938, Public Law 685, 75th Congress.

Description.—This project would have consisted of a channel 16 feet deep and 150 feet wide from the Palm Beach Harbor channel to an anchorage basin 16 feet deep, 750 feet wide, and 2,000 feet long in Lake Worth opposite Tangier Ave., Palm Beach. The length of the project would have been about 2.8 miles and it would have joined the Palm Beach Harbor Channel, which is a completed project.

LAKE WORTH INLET TO SOUTH LAKE WORTH INLET, PALM BEACH, FLA.

Authorization.—River and Harbor Act of 1958.

Description.—This project entailed Federal participation in the cost of a 15-mile-long shore protection project. A sand transfer plant at Lake Worth Inlet was constructed in 1958 and operated for the authorized 10-year project life. The local sponsors continue to operate the plant. This authorized project is included in a post-authorization study for the entire Palm Beach County shoreline which includes a separate project for the remainder of the county (Palm Beach County from Martin County line to Lake Worth Inlet and from South lake Worth Inlet to Broward County Inlet). The post-authorization study may result in a recommendation for new Congressional authorization.

GULF INTRACOASTAL WATERWAY, APALACHICOLA BAY TO SAINT MARKS RIVER, FLA.

Authorization.—River and Harbor Act of August 26, 1937, Public Law 392, 75th Congress; the Act of July 23, 1942 (Public Law 675, 77th Congress); and the River and Harbor Act of March 2, 1945, Public Law 14, 79th Congress.

Description.—The plan of improvement for the segment being deauthorized provides for a channel 12 feet deep and 125 feet wide through Carrabelle, Crooked, and Ochlockonee Rivers and Ochlockonee and Apalachee Bays. The plans of improvement authorized by Public Laws 392 and 14 provided for a channel 12 feet deep and 124 feet wide from Apalachicola Bay to St. Marks, Florida. The section from Apalachicola Bay to Carrabelle, Florida has been completed. The segment being deauthorized would have extended the Gulf Intracoastal Waterway to St. Marks, Florida, and would have provided a protected route for waterborne commerce that now must travel through the open Gulf.

GULF INTRACOASTAL WATERWAY, ST. MARKS TO TAMPA BAY, FLA.

Authorization.—River and Harbor Act of 1968

Description.—This project would have provided a waterway 12 feet deep and 150 feet wide from St. Marks to Tampa Bay, Florida, including that portion (43 miles) of the existing project for the Intracoastal Waterway, Caloosahatchee River to Anclote River, between Tampa Bay and Anclote River.

PENSACOLA HARBOR, FLA.

Authorization.—River and Harbor Act of March 2, 1945, Public Law 14, 79th Congress.

Description.—This project would have consisted of constructing a channel 100 feet wide and 21 feet deep from that depth in Pensacola Bay to the mouth of Bayou Chico, thence 100 feet wide, 20 feet deep and 4,400 feet long in the Bayou, deepening the turning basin to 20 feet. Construction of the Pensacola Harbor project was completed in 1965, based on authorization in the River and Harbor Act of 1962, which provided for a channel 15 feet wide and 100 feet wide from that depth in Pensacola Bay to the mouth of Bayou Chico, thence 14 feet deep and 75 feet wide for 4,400 feet to a turning basin 500 feet square and 14 feet deep.

ST. AUGUSTINE HARBOR, FLA.

Authorization.—River and Harbor Act of 1950.

Description.—The uncompleted segment of the project would have consisted of the landward extension of the groin and jetty on the north side of the inlet. The St. Augustine Harbor project is complete except for this segment.

TAMPA HARBOR, FLA.

Authorization.—Flood Control Act of 1970.

Description.—Being deauthorized is the bottom 1 foot of all project segments authorized in 1970. The Tampa Harbor project is under construction, to a depth 1 foot less than authorized. The 1 foot of underkeel clearance is not required.

ALABAMA-COOSA RIVER BASIN, CANTON LAKE, GA.

Authorization.—River and Harbor Act of March 2, 1945, Public Law 14, 79th Congress.

Description.—The Canton reservoir project would have been located in Cherokee County, Georgia, about 3 miles northeast of Canton, 83.8 miles above the mouth of the Etowah River and 35.9 miles upstream from Allatoona Dam. The 885-foot-long dam would have consisted of a concrete spillway 416 feet long with eight tainter gates 29 feet high and 43 feet wide connected to high ground on both banks by concrete nonoverflow abutments. A powerhouse located in the right bank would have contained two 13,500 kw units.

At maximum power pool elevation, the reservoir would have had an area of 2,150 acres and at minimum power pool elevation, 1,500 acres. About 19,000 acre-feet of storage would have been available between these elevations for power generation. Dead storage would have been 26,000 acre-feet.

Construction of the reservoir would have necessitated the relocation of modification of about 2 miles of the Louisville and Nashville Railroad, portions of Georgia Highway No. 5 and about 2 miles of county roads. Total clearing would have been performed between elevation 905, 5 feet below minimum power pool, and elevation 992, 2 feet above maximum power pool. The land that would be required for the reservoir is estimated to be 2,550 acres.

ALABAMA-COOSA RIVER BASIN, CARTECAY LAKE, GA.

Authorization.—River and Harbor Act of March 2, 1945, Public Law 14, 79th Congress.

Description.—This project would have been located in Gilmer County, Georgia, about 2 miles southeast of Ellijay on the Cartecay River 1.7 miles above its confluence with the Ellijay River. The 1,590-foot-long dam would have consisted of a 296-foot-long spillway with 6 tainter gates 25 feet high and 40 feet wide with concrete abutments across the main channel that would be connected by earth fill sections to high ground on both banks. An earth fill dike 1,020 feet long would have been required in a low saddle on the left bank. A power plant located on the right bank would have contained one 10,500 kw unit.

At maximum power pool elevation 1,460 the reservoir would have had an area of 3,650. With a maximum drawdown of 75 feet, the power storage would have been 160,000 acre-feet. There would have been 55,000 acre-feet of dead storage.

Construction of the reservoir would have necessitated the relocation or modification of 11 miles of Georgia State Highway No. 52 and about 5 miles of county roads. The reservoir would have been totally cleared between elevation 1,380, 5 feet below minimum power pool, and elevation 1,462, 2 feet above maximum power pool. Land requirements would have been 4,150 acres.

ALABAMA-COOSA RIVER BASIN, GILMER LAKE, GA.

Authorization.—River and Harbor Act of March 2, 1945, Public Law 14, 79th Congress.

Description.—The Gilmer reservoir project would have been located in Cherokee County, Georgia, about 3 miles east of Ball Ground, 100 miles above the mouth of the Etowah River and 52.1 miles upstream from the Allatoona project. The dam with a total length of 6,248 feet would have consisted of a 258-foot-long concrete spillway with five tainter gates 30 feet high and 42 feet wide, and concrete nonoverflow abutments across the main channel which would have been connected by earthfill dikes to high ground on both banks. A power plant in the righ bank would have contained two 34,000 kw units.

The reservoir at maximum power pool elevation would have had an area of 15,700 acres and at minimum power pool elevation 11,100 acres. It would have a usable power storage between these elevations of 265,000 acre-feet. Dead storage would have been 515,000 acre-feet.

Construction of the reservoir would have required the relocation or modification of about 1 mile of Federal Highway No. 19, a total of 1 mile of Georgia Highways Nos. 53 and 318 and 20 miles of county roads. Total clearing would have been performed between elevations 1,005, 5 feet below minimum power pool, and elevation 1,082, 2 feet above maximum power pool. It is estimated that 17,000 acres of land and the removal of an atomic research laboratory would have been required for the reservoir.

ALABAMA-COOSA RIVER BASIN, KINGSTON LAKE, GA.

Authorization.—River and Harbor Act of March 2, 1945, Public Law 14, 79th Congress.

Description.—This project would have been located 24.4 miles above the mouth of the Etowah River in Bartow County, Georgia, about 12 miles east of Rome and 2 miles west of Kingston. The plan contemplated for this project consisted of a 614-foot-long concrete spillway with 12 tainter gates 35 feet high and 42.5 feet wide, and concrete nonoverflow abutments across the main channel. The left abutment section would have been connected to high ground by an earthfill dike. Earth dikes would have been required in two low saddles on the left bank and one on the right bank. Three 20,500 kw units would have been installed in a powerhouse in the right bank.

The Kingston reservoir would have had an area of 4,550 acres at maximum power pool elevation and 2,560 acres at minimum power pool elevation. The reservoir would have provided 35,500 acre-feet of storage for power operations between these elevations. Dead storage would have been 46,500 acre-feet.

Reservoir relocations or modifications that would have been required include a total of about 11 miles of of the Seaboard Airline and Nashville, Chattanooga and St. Louis Railroads, 1 mile of Federal Highway No. 411, 2 miles of Georgia Highways Nos. 61 and 113 and 11 miles of county roads. The reservoir would have been completely cleared between elevations 655, 5 feet below minimum power pool and 672, 2 feet above maximum power pool. Land requirements would have been about 6,560 acres.

LAZER CREEK LAKE, GA.

Authorization.—Flood Control Act of 1965.

Description.—The Lazer Creek Dam would have been located 255.7 miles above the mouth of the Flint River in Talbot and Upson Counties about eight miles southwest of Thomaston. The dam would have had a total length of 3,420 feet and a maximum height of 142 feet. It would have consisted of a concrete gated spillway 584 feet long with concrete non-overflow abutments across the main channel to be connected to high ground on the left bank by an earth fill dike 670 feet long and on the right bank by a dike 1,450 feet long. The spillway crest would have been at elevation 520. A power plant located in the left bank would have contained two 43,500 kw units. The reservoir at maximum power pool elevation 543 with an area of 9,900 acres would have extended 7.7 miles upstream to the Spewrell Bluff Dam site. At full power pool the reservoir would have had a total capacity of 88,000 acre-feet between elevations 533 and 543 for power operations and 45,000 acre-feet above elevation 543 would have been reserved for flood control. This reservoir would have required the relocation or modification of portions of two state highways and four miles of county road. It would have been one of three headwater, multiple purpose projects (including Spewrell Bluff Lake and Lower Auchumpkee Creek Lake) formulated as a system for flood control, power production, navigation flow regulation and recreation.

LOWER AUCHUMPKEE CREEK LAKE, GA.

Authorization.—Act of December 30, 1963, Public Law 88-253.

Description.—The Dam for this project would have been located 233.4 miles above the mouth of the Flint River in Taylor and Crawford Counties about 18 miles southeast of Thomaston. The reservoir would have extended 22.3 miles to the Lazer Creek Dam site in Talbot and Upson Counties. The Lower Auchumpkee Creek Dam, with a total length of 4,920 feet and maximum height of 130 feet, was to consist of a concrete gated spillway 392 feet long with non-overflow abutments extending across the river channel to be connected to high ground by an earth-fill dike 3,400 feet long on the left bank and a dike 500 feet long on the right bank. The top of the dam would have been at elevation 447 and the spillway crest at elevation 397. Two 40,500 kw units were to be installed in a power plant located in the right abutment. The reservior at maximum power pool elevation 417 would have covered an area of 15,600 acres and had a total capacity of 403,000 acre-feet at full power pool of which 135,000 acre-feet between elevations 407 and 417 would have been used for power operation and about 145,000 acre-feet of storage between elevations 417 and 425 would have been provided for flood control. Two Federal and two State highways and 13 miles of county roads would have had to be relocated. This was one of three headwater, multiple-purpose projects (Spewrell Bluff Lake and Lazer Creek lake being the other two) formulated as a system for flood control, power production, navigation flow regulation and recreation.

SPEWRELL BLUFF LAKE, GA.

Authorization.—Act of December 30, 1963, Public Law 88-253.

Description.—The dam for this project would have been located 263.4 miles above the mouth of the Flint River in Talbot and Upson Counties about nine miles west of Thomaston. The reservoir would have extended into Meriwether, Pike and Spalding Counties.

The dam, with a total length of 1,950 feet and a maximum height of 180 feet, was to consist of a concrete gated spillway 440 feet long with concrete non-overflow abutments 760 feet long across the main channel, and earth fill dikes 125 and 625 feet long to high ground on the left and right banks, respectively. A power plant with two 50,000 kw units would have been located in the right bank. The reservoir formed by this dam would have covered an area of 16,800 acres at maximum power pool elevation 700. A usable storage of 322,000 acre-feet would have been provided for power generation between elevations 670 and 700; and 230,000 acre-feet would have been reserved between elevations 700 and 709 for flood storage. The reservoir would have required the relocation or modification of seven state highways, two railroads and 26 miles of county roads. It was one of three headwater, multi-purpose projects (Lazer Creek Lake and Lower Auchumpkee Creek Lake being the other two) formulated as a system for flood control, power production, navigation flow regulation and recreation.

ALA WAI HARBOR, OAHU, HAWAII

Authorization.—River and Harbor Act of 1968.

Description.—The project would have provided for modification of an existing non-Federal 1,340 foot-long seaward breakwater to provide additional berthing capacity at an existing non-Federal harbor.

HANAPEPE BAY SEAWALL, KAUAI, HAWAII

Authorization.—River and Harbor Act of 1958, Public Law 500, 85th Congress.

Description.—The project would have provided a 1,900 foot long, rubble mound revetment along the bayfront.

KAUNAKAKAI DEEP DRAFT HARBOR, MOLOKAI, HAWAII

Authorization.—River and Harbor Act of 1962.

Description.—The project would have provided a 40-foot-deep, 500-foot-wide, 1,100-foot-long entrance channel; a 35-foot-deep, 62-acre turning basin; an 1,100-foot-long jetty; and 3,000-foot-long west breakwater and a 2,300-foot long south breakwater.

WAIMEA BEACH SEAWALL, KAUAI, HAWAII

Authorization.—River and Harbor Act of 1958.

Description.—The project would have provided a 1,240-foot-long rubble mound seawall along the Waimea Bay front.

MUD LAKE AREA, IDAHO

Authorization.—Flood Control Act of 1950.

Description.—The project would have included strengthening and raising about 10 miles of the existing Mud Lake Dam and Levee embankment to protect surrounding farmlands from periodic flooding. The project was to be located on Camas Creek about 20 miles east and 50 miles north of Idaho Falls, Idaho.

SOUTH FORK, CLEARWATER RIVER, IDAHO

Authorization.—Flood Control Act of 1950.

Description.—The project would have provided for channel clearing and construction of revetted levees for flood protection between and in the towns of Stites and Kooskia. Emergency construction of temporary levees and temporary revetment was completed in 1949 and 1950.

TETON RIVER, IDAHO

Authorization.—Flood Control Act of 1950.

Description.—The project would have provided for channel clearing and rectification, bank revetments, and levees along the lower 10-mile reach of the Teton River.

BLACKFOOT RESERVOIR, IDAHO

Authorization.—Flood Control Act of 1962.

Description.—The project would have consisted of raising the concrete impervious core section of the existing Blackfoot Dam by 6 feet, reshaping the earth and rock dam, modifying the spillway and outlet works, and raising China Hat Dam 10 feet. Modifications would have provided for flood control by permitting operation of the project to elevation 6126 rather than the current normal maximum pool level of elevation 6120. The existing project is owned and operated by the Bureau of Indian Affairs (BIA) and is currently under a program of rehabilitation by that agency to comply with dam safety requirements. The Corps of Engineers is currently under agreement with BIA to design the modification work, which is similar to the authorized project.

BOISE VALLEY, IDAHO

Authorization.—Flood Control Act of 1950.

Description.—The project would have consisted of bank revetment, channel rectification and dike protection to protect against flood damages along a 62-mile reach of the Boise River from Barber Dam near Boise, Idaho, to the Snake River.

COTTONWOOD CREEK DAM, IDAHO

Authorization.—Flood Control Act of 1966.

Description.—The plan included construction of an earthfill dam on Cottonwood Creek in the vicinity of Boise, Idaho, to serve the single purpose of local flood protection. The dam would have been located about 700 feet upstream from the Canon mouth and just below the confluence of Cottonwood and Freestone Creeks. A storage space of 1,050 acre-feet would have been provided, including 680 acre-feet for containment of the standard project flood, and 370 acre-feet for sediment storage. The proposed outlet works were to have had a capacity of 250 c.f.s., equal to the capacity of the existing downstream channel. The spillway width would have been 100 feet, having a design capacity of 33,500 c.f.s. The dam height and length would have been 96 feet and 490 feet, respectively.

HEISE-ROBERTS LEVEE EXTENSION, IDAHO

Authorization.—Flood Control Act of 1950.

Description.—The project would have provided protection for the Heise-Roberts area on both banks of the Snake River downstream from the mouth of Henry's Fork; on the left bank of Henry's Fork from its mouth upstream to Texas Slough; and on the left bank of Texas Slough from its mouth to two miles upstream. Improvements would have consisted of channel clearing, rectification, levees, and bank protection. Construction of levees along the left bank of the Snake River downstream from the mouth of Henry's Fork was completed in May of 1968.

WEISER RIVER, IDAHO

Authorization.—Flood Control Act of 1950.

Description.—The project would have included measures to provide intermittent flood protection to agricultural lands and farm crops along a 60-mile reach of the Weiser River and tributary streams, downstream from Council. Protection measures would have consisted of channel rectification, bank revetment, and levee protection.

WHITEBIRD CREEK, IDAHO

Authorization.—Flood Control Act of 1950.

Description.—The project would have provided flood protection measures through the City of Whitebird consisting of levees, revetment, and channel improvement along a 3.5 mile reach of Whitebird Creek.

CHICAGO RIVER, COOK COUNTY, ILL.

Authorization.—River and Harbor Act of July 24, 1946, Public Law 525, 79th Congress.

Description.—The project would have provided for a channel 9 feet deep between North Avenue and Addison Street; extension of the channel between North and Belmont Avenues to within 30 feet of existing bulkheads and river banks; and thence to Addison Street.

DAM 43, OHIO RIVER, ILL.

Authorization.—River and Harbor Act of March 3, 1909, Public Law 317, 60th Congress.

Description.—The project would have provided for improvements to beartrap structures.

FARMERS DRAINAGE AND LEVEE DISTRICT, ILL.

Authorization.—Flood Control Act of 1962.

Description.—The project would have provided increased flood protection for the Farmer's drainage and Levee District by extending the present levee system 2.4 miles and raising low sections of the existing levee. A total of 7,900 acres would have been protected.

FREEPORT, ILL.

Authorization.—Flood Control Act of June 22, 1936, Public Law 738, 74th Congress.

Description.—The project would have provided flood protection for Freeport, Illinois, by diverting the Pecatonia River around the urbanized flood plain of Freeport. Four bridges—two railroad and two highway—would have crossed the new channel. Material from the new channel would have been used to construct a levee.

ILLINOIS WATERWAY NAVIGATION, ILLINOIS

Authorization.—River and Harbor Act of August 30, 1935, Public Law 409, 74th Congress.

Description.—The project feature being deauthorized is a modification to the Illinois Waterway Navigation Project; this feature would have provided for straightening an S-curve in the channel in the vicinity of Pekin, Illinois between river miles 149.0 and 152.0. The remainder of the Illinois Waterway Navigation project has been completed.

KENILWORTH, ILL., SHORE OF LAKE MICHIGAN, ILL.

Authorization.—River and Harbor Act of 1954.

Description.—The project feature being deauthorized would have provided for protection of the Mahoney Park 200-foot-long beach frontage located at the extreme south end of the village limits by constructing a steel sheet piling impermeable groin, about 200 feet long, near the south lines of Mahoney Park. The overall project also would have included construction of an impermeable groin to protect the total 560-foot riparian beach at Waterworks Park, located about midway inside the village limits, which was completed in June 1954.

LEVEE UNIT 1, WABASH RIVER, GALLATIN COUNTY, ILL.

Authorization.—Flood Control Act of June 22, 1936, Public Law 738, 74th Congress.

Description.—The project would have provided for an agricultural levee.

LEVEE DISTRICT NO. 21, VANDALIA, ILL.

Authorization.—Flood Control Act of 1958.

Description.—The Vandalia Drainage and Levee District is located in central Illinois, extending along the left bank of the Kaskaskia River between mile 156.0 and mile 173.5. The authorized plan of improvement called for the reconstruction of 20.9 miles of levee and installation of 6 drainage structures. Closure structures for railroad and highway crossings were to be provided as necessary.

LITTLE CALUMET RIVER, ILL.

Authorization.—Flood Control Act of 1954.

Description.—The project would have provided for enlargement of the Calumet Union Drainage Ditch within Cook County, Illinois, as follows: in Hazel Crest—channel improvements from 171st

Street to 169th Street; in Harvey, Markham and South Holland—channel improvements from Dixie Highway to the outlet of the Calumet Union Drainage Ditch at the Little Calumet River, Illinois.

METROPOLIS, ILL.

Authorization.—Flood Control Act of June 28, 1938, Public Law 761, 75th Congress.

Description.—The project would have provided for the construction of a levee, wall and pumping plants. The project was previously recommended for deauthorization and there has been no recent local interest.

MISSISSIPPI RIVER BETWEEN MISSOURI RIVER AND MINNEAPOLIS, MINN., ILLINOIS

Authorization.—River and Harbor Act of July 3, 1930, Public Law 520, 71st Congress.

Description.—The project feature being deauthorized would have provided for construction of about 600 feet of guidewall extensions, at each of Locks Nos. 4, 5, 5A, 7, 8, 9, and 10 to allow tows more distance to align for the lock chambers. The existing project provides for a 9-foot channel between the mouth of the Missouri River and Minneapolis, Minnesota, by construction of a system of locks and dams, supplemented by dredging. The St. Paul District portion of the project is essentially complete except for work to extend the guidewalls. The uncompleted extension of the guidewall at Lock No. 3 is currently classified active and, as a separable element of the overall project, is also being deauthorized.

LOUIS DISTRICT, OHIO RIVER OPEN CHANNEL, ILLINOIS

Authorization.—River and Harbor Act of March 2, 1927.

Description.—The original project covered the entire length of the Ohio River from its mouth to Pittsburgh, Pennsylvania, a distance of 981 miles. The authorization provided for removal of all obstructions endangering steamboat navigation. This portion of the project has been overtaken by subsequent developments and authorizations.

ICE PIER, OHIO RIVER OPEN CHANNEL, ILLINOIS

Authorization.—River and Harbor Act of January 21, 1927.

Description.—This project, which is currently classified as inactive by the Corps of Engineers, was intended to provide construction of ice piers as part of the overall Ohio River Open Channel project.

OHIO RIVER OPEN CHANNEL, ILLINOIS

Authorization.—River and Harbor Act of July 3, 1930.

Description.—This project is currently classified by the Corps of Engineers as inactive. It was to consist of reforestation of sloughs on the Kentucky Peninsula near Evansville, Indiana, and creation of a 200-foot strip along the river's upstream bank for bank protection.

PEORIA, PEORIA COUNTY LEVEES, ILLINIOS

Authorization.—Flood Control Act of 1962.

Description.—The project would have provided flood protection for Peoria by construction of 7,550 feet of levees, 15,750 feet of floodwalls, two pumping stations, and modification of existing interior drainage facilities.

SHAWNEETOWN, GALLATIN COUNTY LEVEE ENLARGEMENT, ILLINOIS

Authorization.—Flood Control Act of June 28, 1938, Public Law 761, 75th Congress.

Description.—The project would have provided for raising the existing earth levee an average of 8 feet for a length of 21,500 feet and constructing a concrete wall 9 feet high and 500 feet long.

SCOTT COUNTY DRAINAGE AND LEVEE DISTRICT, ILL.

Authorization.—Flood Control Act of 1962.

Description.—The project was to be located on the left bank of the Illinois River between river miles 56.7 and 63.2, in Scott County, Illinois. The project would have provided for construction of 16.8 miles of new or enlarged levees, construction of closure structures, and seepage control measures.

SOUTH BELOIT, ILL.

Authorization.—Flood Control Act of 1948.

Description.—The project was to be located at South Beloit, Illinois, in Winnebago County, and Beloit, Wisconsin, in Rock County, on the Rock River. Local protection would have been provided against flooding from the Rock River and Turtle Creek by a system of levees and floodwalls extending about 1.7 miles.

WAUKEGAN HARBOR, ILL.

Authorization.—Section 201 of the Flood Control Act of 1965 and approved by resolution of the Committee on Public Works of the House of Representatives, dated December 17, 1970, and resolution of the Committee on Public Works of the Senate, dated December 8, 1970.

Description.—The project would have provided for deeping the existing entrance channel in the outer harbor to 25 feet and extending it to that depth in Lake Michigan at widths varying from 380 feet to 500 feet; deepening the channel between piers to a depth of 23 feet and a width of 180 feet, and deepening the inner basin to 23 feet and extending its limits approximately 275 feet northward.

WILLIAM L. SPRINGER LAKE, ILL.

Authorization.—Flood Control Act of 1962.

Description.—The project would have provided for construction of a multi-purpose reservoir at Oakley, Illinois. Project components would have included a multi-purpose dam and lake, a subimpoundment near the mouth of Friends Creek, and a dual purpose recreation channel and floodway extending from Decatur downstream to the mouth of Salt Creek. Project purposes included flood control, water supply, recreation, and fish and wildlife enhancement.

ALTON COMMERCIAL HARBOR, ILL.

Authorization.—River and Harbor Act of 1958.

Description.—The project was to be located on the left bank of the Mississippi River, mile 202.4, above the Ohio River, at Alton, Illinois, in Madison County. The project would have consisted of dredging, a decked railroad trestle, a connecting truck trestle, bank protection, a rehabilitated warehouse, and an access road.

KEACH DRAINAGE AND LEVEE DISTRICT, GREEN COUNTY, ILL.

Authorization.—Flood Control Act of 1962.

Description.—The project was to be located on the left bank of the Illinois River between river miles 32.6 and 38.2, in Green County. The project would have provided for raising and enlarging 13.9 miles of levee, altering the discharge lines of a pump station, constructing drainage facilities, and seepage control measures.

BIG SWAN DRAINAGE AND LEVEE DISTRICT, ILL.

Authorization.—Flood Control Act of 1962.

Description.—Big Swan Drainage and Levee District is located on the left bank of the Illinois River between miles 50.1 and 56.7, Scott County, Illinois. The plan provided for raising and enlarging 13.6 miles of levee, altering the discharge lines of pump station, construction of closure structures, and seepage control measures.

FORT CHARTRES AND IVY LANDING DRAINAGE DISTRICT NUMBERED 5, ILLINOIS

Authorization.—Section 201 of the Flood Control Act of 1965 and approved by resolution of the Committee on Public Works of the House of Representatives, dated December 15, 1970, and resolution of the Committee on Public Works of the Senate, dated December 17, 1970.

Description.—The project was to be located on the left bank of the Mississippi River between river miles 138 and 141, above the Ohio River, in Monroe County, Illinois. This Local Flood Protection project would have provided for construction of three miles of riverfront levee, gravity drainage structures, seepage control measures, crushed stone surfacing of service roads and levee crown, and construction or modification of three pumping stations and appurtenances.

ANDERSON, MADISON COUNTY, IND.

Authorization.—Flood Control Act of June 22, 1936, Public Law 738, 74th Congress.

Description.—The project was to consist of 1.2 miles of earth levee, 0.06 mile of concrete wall, and one pumping plant.

ILLINOIS WATERWAY, CAL-SAG CHANNEL, PART 2, INDIANA

Authorization.—River and Harbor Act of March 2, 1945, Public Law 14, 79th Congress, and the River and Harbor Act of July 24, 1946, Public Law 525, 79th Congress.

Description.—The project would have consisted of enlarging the channel along the general route of the Grand Calumet River to 225 feet in width by 9 feet in depth between the Little Calumet River and the junction with the Calumet River Branch of the Indiana Harbor Canal, and 160 feet wide eastward from that junction to Clark Street, Gary, Indiana, with a turning basin at Clark Street; enlarging the Calumet River Branch of the Indiana Harbor Canal to a width of 225 feet and depth of 9 feet to the vicinity of 141st Street, East Chicago, Indiana; constructing a lock and control works in the Grand Calumet River west of the Indiana Harbor Canal; and, relocating 12 railroad and 10 highway bridges.

The Illinois Waterway, Cal-Sag Channel consists of three separate parts. Part 1 starts at Cal-Sag junction and extends upstream to Lake Calumet. Part 2 starts on the Grand Calumet River between Little Calumet River's junction with the Indiana Harbor Canal, and extends to Clark Street in Gary, Indiana. Part 3 starts at the emergency dam upstream of Lockport Lock and to the junction of Sanitary and Ship Canal and Cal-Sag Channel.

The 160-foot-wide and 9-foot-deep Grand Calumet Channel enlargements from the Little Calumet River junction to its junction with the Indiana Harbor Canal were first authorized in the River and Harbor Act of 1945 and subsequently modified by the River and Harbor Act of 1946, which provided for 225-foot width, and also provided for a 160-foot-wide channel from the Indiana Harbor Canal to Clark Street, Gary, Indiana.

The Illinois Waterway Cal-Sag Channel, Part 1 has been constructed. Part 1 consisted of Channel widening from 60 to 225 feet from Sag Junction through Blue Island, Illinois at a depth of 9 feet. Extensive bridge modifications were also constructed. No work has been accomplished on Parts 2 and 3.

LEVEES BETWEEN SHELBY BRIDGE AND BAUMS BRIDGE, INDIANA

Authorization.—Flood Control Act of June 22, 1936, Public Law 738, 74th Congress.

Description.—The project would have provided flood protection by construction of about 12 miles of new levee starting 65.5 miles above the Wilmington Dam for 2 miles on the right bank and 10 miles on the left bank.

MARION, IND.

Authorization.—Flood Control Act of 1968.

Description.—The project was to consist of a 5,600-foot earth levee, 750 feet of concrete wall, and one pumping plant.

VINCENNES, IND.

Authorization.—Flood Control Act of 1946.

Description.—This portion of the project would have consisted of a downstream levee to tie back the otherwise completed project to high ground southeast of the City of Vincennes.

DAVIDS CREEK LAKE, IOWA

Authorization.—Flood Control Act of 1968.

Description.—The project would have consisted of a multipurpose rolled earthfill dam with an uncontrolled emergency grassed spillway for flood control, general recreation, and fish and wildlife purposes. The project would have been located on David's Creek, a left bank tributary of the East Nishnabotna River, about ½-mile above the town of Exira, Iowa, in Audubon County. The dam would have been 1,800 feet in length, 62 feet in height, and would have stored 29,600 acre-feet of water exclusive of surcharge storage.

FORT MADISON HARBOR, IOWA

Authorization.—River and Harbor Act of 1968.

Description.—The project would have consisted of improvements for commercial navigation at Fort Madison. The project would have consisted of an access channel, 8,700 feet long and 200 feet wide, for barge traffic from the Mississippi River main channel to an industrial site.

KEOKUK SMALL BOAT HARBOR, IOWA

Authorization.—River and Harbor Act of 1962.

Description.—The project plan provided for construction of a recreational small boat harbor. The project would have consisted of a breakwater, an entrance channel, and a maneuvering channel 1,015 feet long, 60 feet wide, and 5 feet deep.

MISSOURI RIVER LEVEE SYSTEM, IOWA

Authorization.—Flood Control Act of August 18, 1941, Public Law 228, 77th Congress.

Description.—Units of the Missouri River Levee System were authorized on both banks of the Missouri River in four states from Sioux City, Iowa, to the mouth at St. Louis. Levees were constructed totalling about 487 miles and averaging about 13.9 feet high.

A number of inactive units being deauthorized by H.R. 3678 were originally authorized by the same Acts as several units which are active and may be constructed. Under the procedures established under the Water Resources Development Act of 1974, the inactive units would not become eligible for deauthorization until eight years after the final construction appropriation to the final units under construction. The inactive units were reclassified by the Corps of Engineers following a reevaluation of the entire system based on generalized investigation of large reaches of the river. A universal deauthorization of the inactive units would affect units which may be feasible under individual analysis using current criteria and data. The inactive units being deauthorized are: L–753, L–747, L–739, L–733, L–729, L–728, L–715, L–700, L–691, L–670, L–651, L–650, L–643, L–637, and L–528.

EL DORADO, WEST BRANCH, WALNUT RIVER, BUTLER COUNTY, KANS.

Authorization.—Flood Control Act of 1965.

Description.—The project was to provide protection for the City of El Dorado, Kansas, and would have consisted of about 8,400 feet of improved channel and 21,700 feet of spoil bank and training levees. The channel would have had a bottom width of 150 feet and a depth of approximately 13 feet. Carrying capacity of the channel would have been 33,500 c.f.s.

GARNETT LAKE, KANS.

Authorization.—Flood Control Act of 1954.

Description.—Garnett Lake would have been one of nine lakes originally authorized as part of the flood control system for the Osage River Basin, Missouri and Kansas. The damsite would have been on Pottawatomie Creek in Anderson County. The dam would have been an earthfill structure, 3,500 feet long and 63 feet high, at the highest point, above the valley floor. The multipurpose pool would have covered about 2,400 acres and, at the top of the flood control pool, the lake would have covered 9,200 acres.

GROVE LAKE, KANS.

Authorization.—Flood Control Act of 1962.

Description.—Grove Lake would have been located on Soldier Creek in Jackson County. The dam would have been an earthfill structure, 9,000 feet long and about 85 feet high above the valley floor at the highest point. At multipurpose elevation, the lake would have covered about 6,920 acres and, at the top of the flood control pool, it would have covered about 12,550 acres.

INDIAN LAKE, KANS.

Authorization.—Flood Control Act of 1970.

Description.—Indian Lake would have been located on Indian Creek in Johnson County. The dam would have been an earthfill structure, about 4,800 feet long and about 75 feet high above the valley floor at the highest point. The multipurpose pool would have covered about 580 acres and, at the top of the flood control pool, the lake would have covered 980 acres. Indian Lake was to be one element of a system of four lakes and a channel modification authorized to provide flood control to a heavily industrialized area of Kansas City, Missouri.

KANSAS RIVER NAVIGATION, KANSAS

Authorization.—River and Harbor Act of 1965.

Description.—The Kansas River Navigation project would have included channel improvements over the lower 9.3 miles of the Kansas River.

MISSOURI RIVER LEVEE SYSTEM, KANSAS

Authorization.—Flood Control Act of August 18, 1941, Public Law 228, 77th Congress.

Description.—Units of the Missouri River Levee System were authorized on both banks of the Missouri River in four states from Sioux City, Iowa, to the mouth at St. Louis. Levees were constructed totalling about 487 miles and averaging about 13.9 feet high. The inactive units being deauthorized in the bill were authorized by the same Acts as several units which are active and may be constructed. Under the procedure established under the Water Resources Development Act of 1974, the inactive units would not become eligible for deauthorization until eight years after the final construction appropriation to the final unit under construction. The inactive units were reclassified following a reevaluation of the entire system based on generalized investigation of large reaches of the river. A universal deauthorization of the inactive units would affect units which may be feasible under individual analysis using current criteria and data. Therefore, only inactive units R–402 and R–395–393 are deauthorized here.

NEODESHA LAKE, WILSON COUNTY, VERDIGRIS RIVER, KANS.

Authorization.—Flood Control Act of August 18, 1941, Public Law 228, 77th Congress.

Description.—Neodesha Lake Dam would have been located at river mile 222.8 of the Verdigris River about 2 miles north of Neodesha, Kansas. Including spillway, the dam would have been a rolled, impervious earthfill embankment about 4,470 feet long. The spillway would have been a gate-controlled, concrete, chute-type design and would have been located in the left bank flood plain. The structure would have provided 10,000 acre-feet of conservation storage and 80,000 acre-feet of flood control storage.

Neodesha Lake is one of four lakes in the flood control and low-flow augmentation plan for the Verdigris River in Kansas. The plan includes Elk City, Fall River, and Toronto Lakes, all of which have been constructed and are in full operation. Preconstruction planning was suspended in 1952 and the project was placed in an inactive status. On the basis of design criteria and construction costs at that time, the project was no longer considered economically justified. However, the project, including possible development at other sites, is being reconsidered using current design critiera and costs in preparation of the Verdigris River Basin survey report presently underway.

TOMAHAWK LAKE, BLUE RIVER, JOHNSON COUNTY, KANS.

Authorization.—Flood Control Act of 1970.

Description.—Tomahawk Lake would have been located on Tomahawk Creek in Johnson County. The dam would have been an earthfill structure about 2,850 feet long with its top about 75 feet above the valley floor at the highest point. The multipurpose pool would have covered about 850 acres and, at the top of the flood control pool, the lake would have covered about 1,340 acres.

Tomahawk Lake would have been one element of a system of four lakes and a channel modification authorized to provide flood control to a heavily industrialized area of Kansas City, Missouri. All four of those projects are being deauthorized. The other lakes are Mill Lake in Cass County, Missouri, and Indian and Wolf-

Coffee Lakes in Johnson County, Kansas. The channel modification on the Blue River in Jackson County, Missouri, has received construction funding.

TOWANDA LAKE, KANS.

Authorization.—Flood Control Act of 1965.

Description.—The dam site was to be located at mile 18.5 on the Whitewater River, about ¾ mile northwest of Towanda, Kansas. The project purposes include flood control, water supply, water quality, and recreation. The dam would have consisted of a rolled earthfill embankment and a gated concrete spillway. It would have had a total length of 11,460 feet and a maximum height of 82 feet above the streambed. The dependable water yield from the water supply and water quality storage would have been 16.8 mgd.

TUTTLE CREEK LAKE, KANS.

Authorization.—Section 18 of the Water Resources Development Act of 1974.

Description.—Tuttle Creek Lake is constructed and operating. The initial authorization was modified by Public Law 93-251 to improve a road near the project which was experiencing increased traffic attracted by the lake and was creating dust problems. The road improvement is a separable element of the project and is not essential to the project operation. Therefore, it is being deauthorized. This element is not related to a subsequent modification by Public Law 94-587 which authorized certain other road and bridge improvements.

WOLF-COFFEE LAKE, KANS.

Authorization.—Flood Control Act of 1970.

Description.—Wolf-Coffee Lake would have been located on the Blue River near the confluence of Wolf and Coffee Creeks in Johnson County. The dam would have been an earthfill embankment about 4,800 feet long with its top about 108 feet above the valley floor at highest point. The multipurpose pool would have covered about 1,300 acres and, at the top of the flood control pool, the lake would have covered about 2,430 acres.

Wolf-Coffee Lake is one element of a system of four lakes and a channel modification authorized to provide flood control for the heavily industrialized area of Kansas City, Missouri. All four of the lakes projects are being considered for deauthorization. The other lakes are Mill Lake in Cass County, Missouri, and Indian and Tomahawk Lakes in Johnson County, Kansas. The channel modification on the Blue River in Jackson County, Missouri, has received construction funding.

CEDAR POINT LAKE, KANS.

Authorization.—Flood Control Act of 1950.

Description.—As originally authorized, cedar Point would have been located on Cedar Creek at river mile 4.2 in Chase County, Kansas. The lake was designed for a total storage of 55,000 acre-feet with 36,200 acre-feet for flood control, 15,800 acre-feet for water quality control, and 3,000 acre-feet for sedimentation. The water quality control storage would have yielded 2.7 million gallons per day. As modified in the March 1969, Report of Restudy on Cedar Point Reservoir, the dam would have been at the same location but would have contained a total storage of 108,600 acre-feet with 37,100 acre-feet for flood control, 65,400 acre-feet for water quality control, and 6,100 acre-feet for sedimentation. The water quality control storage would have yielded 7.2 mgd. The plan described in the August 1976 Phase I GDM would have had a total available storage of 179,800 acre-feet with 56,700 acre-feet for flood control, 114,500 acre-feet for conservation storage, and 4,900 acre-feet for sedimentation.

Cedar Point Lake was authorized as part of a system of lakes for flood control, water supply, and water quality in the Cottonwood-Grand (Neosho) River Basin. Three lakes (Marion, Council Grove, and John Redmond Dam and Reservoir) have already been built.

COW CREEK-HUTCHINSON, KANS.

Authorization.—Flood Control Act of 1962.

Description.—This improvement would have consisted of straightening, clearing, and deepening the existing channel for approximately 26 miles along Cow Creek. The channel would have had a bottom width of 25–70 feet, side slopes of 1 on 3, and a capacity of 3,500 c.f.s. The project would also have included dikes and laterals to control flows. The project was planned for two-stage development because there were two local project sponsors. The first stage of the project would have extended upstream on Cow Creek about 15 miles from Hutchinson to the Mitchell Nickerson Road. The second stage would have extended upstream from the Mitchell Nickerson Road to about 2 miles south of Lyons.

MISSOURI RIVER LEVEE R414, KANSAS

Authorization.—Flood Control Act of August 18, 1941, Public Law 228, 77th Congress.

Description.—Missouri River Levee R414 would have provided protection to an area of Forth Leavenworth, including the Sherman Army Airfield. The authorized plan called for a levee about 34,000 feet long averaging 17 feet in height. The levee would have generally followed the Missouri River bankline with an appropriate set-back to accommodate the standard floodway width.

CASEYVILLE, UNION COUNTY, KY.

Authorization.—Flood Control Act of June 28, 1938, Public Law 761, 75th Congress.

Description.—The project would have provided for 0.38 mile of earth levee.

CLOVERPORT, KY.

Authorization.—Flood Control Act of June 28, 1938, Public Law 761, 75th Congress.

Description.—The project would have provided for 0.4 mile of earth levee and 0.46 mile of concrete wall.

CORCORDIA, MEADE COUNTY, KY.

Authorization.—Flood Control Act of June 28, 1938, Public Law 761, 75th Congress.

Description.—The project would have provided for 3,650 feet of earth levee.

LOUISVILLE, KY., SECTION A–A

Authorization.—Flood Control Act of June 28, 1938, Public Law 761, 75th Congress.

Description.—The project would have provided for a small section of floodwall near downtown Louisville.

MIDDLESBORO, YELLOW CREEK, BELL COUNTY, KY.

Authorization.—Flood Control Act of December 22, 1944, Public Law 534, 78th Congress.

Description.—The authorized project would have been located at Middlesboro, Kentucky, on Yellow Creek. The project would have provided for an addition to the existing flood protection works for the city. The plan of improvement involved the construction of a series of levees designated as the Tannary and Left-Bank Sections, with a floodgate structure across Yellow Creek.

TOLU, CRITTENDEN COUNTY, KY.

Authorization.—Flood Control Act of June 28, 1938, Public Law 761, 75th Congress.

Description.—The project would have included 5,200 feet of earth levee and 1,200 feet of road embankment.

BAYOU BARTHOLOMEW, LA.

Authorization.—Flood Control Act of 1950.

Description.—The original project authorization included channel improvement and closure of the high water outlets on the main stem of Bayou Bartholomew, enlargement of Deep Bayou, and clearing and enlargement of Overflow Creek. Public Law 89–789 added authority to construct ten retention lakes on the western tributaries of Bayou Bartholomew in Arkansas, six local levee units along the main stem of Bayou Bartholomew in Louisiana for flood protection, and a fish and wildlife mitigation measure.

BLACK BAYOU, RESERVOIR, CADDO PARISH, LA.

Authorization.—Flood Control Act of June 22, 1936, Public Law 738, 74th Congress.

Description.—The original project authorization called for construction of an earthen fill dam 1,350 feet long at the top, rising 24.8 feet above the streambed, with a reservoir providing for the controlled storage of 26,000 acre-feet of water. The outlet works were to be located over the present channel of Black Bayou and an uncontrolled tilting gate spillway 400 feet wide would have extended from a point 260 feet from the right end of the dam. The project's incorporation into the Red River Below Denison Dam, Oklahoma, Texas, Arkansas, and Louisiana, Project did not change the original features.

The Louisiana Department of Public Works in 1945 developed a lake at the proposed site. In 1955, the dam was raised 4 feet and the spillway was rebuilt at a cost of $82,200. In 1963, an addition to the spillway was made and the channel cleared, giving the lake an elevation of 183 feet and a surface area of 4,400 acres which, under existing conditions, represents the permanent pool elevation at this site.

OVERTON-RED RIVER WATERWAY ABOVE MILE 31, LOUISIANA

Authorization.—River and Harbor Act of July 24, 1946, Public Law 526, 79th Congress.

Description.—The original authorization provided for a channel 9 feet by 100 feet, extending from the Mississippi River (mile 301.5 AHP) through Old River (7 miles) and Red River (24 miles), thence by a lateral canal leaving Red River through its right bank at or near mile 31 and existing waterways, across the Mississippi-Red River backwater area and along the south bank of the Red River flood plain to Shreveport, Louisiana, approximately 206 miles from the Mississippi River. The project would have required nine locks (tentatively 650 feet long, 56 feet wide, with a depth of 12 feet on the sills), a pumping plant, numerous railroad and highway bridges, drainage structures, and utility modifications. The canal portion of this project above mile 31 of the Red River is being deauthorized.

Construction of this project has been accomplished only in the lower 31 miles in the existing channels of Old and Red Rivers. No construction work has been accomplished on the canal portion of the project above mile 31. The improvements constructed below mile 31 consist of numerous revetments, dikes, and dredging designed to preserve favorable channel alignment and depth and to correct unfavorable channel alignment and depth. The River and Harbor Act of 1968 authorized construction of the Red River Waterway, Mississippi River to Shreveport project. That project effectively eliminated the need for the Overton-Red River Waterway project above mile 31. The River and Harbor Act of 1968 modified the original authorization to provide for a navigation channel 200 feet wide in order that the construction below mile 31 would be compatible with the authorized Red River Waterway, Mississippi River to Shreveport project.

BAYOU LAFOURCHE AND LAFOURCHE JUMP, LA.

Authorization.—River and Harbor Act of August 30, 1935, Public Law 409, 74th Congress, and the River and Harbor Act of 1960.

Description.—The project features authorized by Public Law 86-645, Section 101, that are unconstructed and are being deauthorized include two features: the Bayou LaFourche Auxiliary Channel and the LaFourche-Jump Waterway. The Auxiliary feature provides for a 30.4 mile navigation channel 12 feet by 125 feet beginning at the Gulf Intracoastal Waterway (GIWW), extending southward generally parallel to and west of Bayou LaFourche, and ending near Leeville. The Jump feature provides for a 14.6 mile navigation channel 12 feet by 125 feet beginning near Leeville at Bayou LaFourche and continuing to Grand Isle.

The improvement authorized by the 1960 act provided for a larger navigation route from the Gulf of Mexico to the GIWW in the vicinity of Bayou LaFourche. Specifically, the existing navigation channel (authorized by the River and Harbor Act of 1935) within Bayou LaFourche was to be enlarged from mile 0 to mile 21.9, an auxiliary was to be constructed parallel to Bayou LaFourche, and the channel from Leeville to Grand Isle was to be enlarged (Jump feature). Channel enlargement of the lower 21.9 miles was completed in 1966. The auxiliary channel, which has not been constructed, would have afforded a route for larger vessels in waterborne commerce to bypass congested portions of Bayou LaFourche. Similarly, the Jump channel extending to Grand Isle has not been constructed, but would have permitted larger vessels to move east-west in that area.

BAYOU LAFOURCHE, LA.

Authorization.—River and Harbor Act of August 30, 1935, Public Law 409, 74th Congress.

Description.—The bill deauthorizes the only feature that remains to be constructed under Public Law 409, a 6-by-60-foot channel from Thibodaux to Lockport, 22 miles in length.

Other features authorized by the 1935 Act included a 6-by-60-foot channel on Bayou LaFourche from Larose (mile 39.6) to the Gulf of Mexico (mile −0.3), jetties at Belle Pass, closure of Fourchon Pass, and a 6-by-60-foot channel on Bayou LaFourche from Thibodaux to Napoleonville. This letter channel was deauthorized under Public Law 90–149, approved 22 November 1967. Work on the other features was completed in 1939.

BAYOU SEGNETTE, JEFFERSON PARISH, LA.

Authorization.—River and Harbor Act of 1954.

Description.—The project as authorized would have provided for a channel 12.2 miles in length to a depth of 9 feet below mean low gulf over a botton width of 60 feet, commencing at the eastern shore of Lake Salvador at the GIWW and ending at the southern end of Company Canal. The 12.2-mile project was constructed to an interim channel size of 6 feet by 30 feet. The remaining work to bring the channel to authorized dimensions is the feature being deauthorized.

BAR HARBOR, MAINE

Authorization.—River and Harbor Act of August 11, 1888, and the River and Harbor Act of September 19, 1890.

Description.—The 1888 River and Harbor Act provided for the construction of a riprap breakwater 3,425 feet in length, extending from Bald Porcupine Island southwesterly to Dry Ledge and then to a point near the north entrance to Cromwell Cove at Mount Desert Island to protect the Bar Harbor waterfront. The 1890 River and Harbor Act reduced the breakwater length to 2,800 feet and shifted the inner arm more to its original alignment to a point about 600 feet from shore. The breakwater was completed to its full length in 1916, but the superstructure was not completed to its full cross section. A report completed in 1954 determined that further navigation improvements at Bar Harbor were not justified at that time and that the breakwater is too far removed from the existing waterfront to protect the existing waterfront from storm damage.

DICKEY-LINCOLN SCHOOL PROJECT, SAINT JOHN, MAINE

Authorization.—Section 204 of the Flood Control Act of 1965.

Description.—Public Law 97-128 deauthorized the original project's Dickey Dam component and its associated transmission facilities. H.R. 3678 deauthorizes the remainder of the project, the Lincoln School features, which calls for construction of hydroelectric power facilities on the Upper Saint John River.

KENNEBEC RIVER, MAINE

Authorization.—River and Harbor Act of June 13, 1902.

Description.—The bill deauthorizes the unconstructed upper 0.6 mile (upstream of U.S. Route 1 bridge at Bath) of the authorized 27-foot-deep channel. The 1902 authorization provided for a 27-foot-deep channel, not less than 500 feet wide, extending from deep water at Phippsburg for about 13 miles upstream to a point 0.6 miles uptream of the U.S. Route 1 bridge at Bath. The project was completed in 1943, except for the 0.6 mile long reach upstream of the bridge.

ROCKLAND HARBOR, MAINE

Authorization.—River and Harbor Act of June 29, 1956, Public Law 630, 84th Congress.

Description.—The bill deauthorizes the following portions of the authorized project: an 18-foot access channel, 100 feet wide and 900 feet long to the shipyard along the southern waterfront; and portions of the outer limits of three branch channels along the central waterfront, authorized to 14 feet, that were not dredged completely to that depth in 1959 when ledge was encountered. The Project authorized in 1956 provided for an 19-foot access channel into Rockland Harbor, the three 14-foot branch channels along the central waterfront, and the 19-foot access channel along the southern waterfront. The project was substantially completed in 1959 except for the 19-foot southern access channel that was not dredged and portions of the other limits of the branch channels along the central waterfront that were not dredged to full depths.

BALTIMORE HARBOR AND CHANNELS, MD.

Authorization.—River and Harbor Acts of August 8, 1917; January 21, 1927; July 3, 1930; October 17, 1940; March 2, 1945; July 3, 1958; and December 31, 1970.

Description.—The project would have provided a navigation channel 150 feet wide to Ferry Bar, and thence 27 feet deep and 150 feet wide to Hanover Street Bridge.

The current authorized project consists of a 50-foot deep main channel varying from 800 to 1,000 feet in width from the Atlantic

Ocean to the harbors of Baltimore, including the Curtis Bay channel. The East and West channels of the Northwest Branch are authorized to 49 feet and 40 feet respectively. The other segments of the authorized project include a connecting channel to the Chesapeake and Delaware Canal, 35 feet deep, 600 feet wide about 13 miles long. The portion of the authorized project being deauthorized is the Ferry Bar channel described above. The project has been constructed to depth of 42 feet in the main ship channels, 35 feet in the East and West channels of the Northwest Branch, 40 feet in the Curtis Bay channel, 27 feet in the connecting channel to the Chesapeake and Delaware Canal. The Ferry Bar channel has been constructed to a depth of 17 feet and a width of 170 feet.

EDGARTOWN HARBOR, MASS.

Authorization.—Section 201 of the Flood Control Act of 1965 and approved by resolution adopted by the Committee on Public Works of the House of Representatives on December 15, 1970, and by the Committee on Public Works of the Senate on December 19, 1970.

Description.—The project would have consisted of a 10-acre anchorage, 6 feet deep, at the east side of the inner harbor; construction of an artificial sand dune about 2 miles to the south along Katama Beach from high ground on Martha's Vineyard Island along the south end of Katama to the vicinity of, but not connecting with, Chappaquiddick Island. Natural accretion of sand at Katama Beach has closed the breach at the eastern end of the beach, thereby reducing the need for sand dune construction.

FALL RIVER HARBOR CHANNEL, MASS.

Authorization.—River and Harbor Act of 1930, Public Law 520, 71st Congress.

Description.—The project would have provided for rock removal to a depth of 30 feet at the lower end of Hog Island Shoal at the north side of the entrance to Mount Hope Bay. The 1930 authorization provided for a 30-foot channel from the northeast end of Narragansett Bay to a point opposite the oil refinery wharf in the northern part of the Fall River; the Hog Island Shoal rock removal; and maintenance of a 25-foot deep anchorage north of Borden Flats Light. The 1946 and 1954 River and Harbor Acts provided for a 35-foot Tiverton channel, a 35-foot channel into Fall River Harbor and a 35-foor turning basin at the upper end of the project. All this work has been completed except for the removal of Hog Island Shoal. The River and Harbor Act of 1968 authorized deepening of these channels and the turning basin to 40 feet, a modification which has not been completed but is in an active engineering stage.

IPSWICH RIVER, MASS.

Authorization.—Flood Control Act of 1968.

Description.—The project would have included a channel 6 feet deep, 60 feet wide, and 3 miles long extending to the town wharf at Ipswich; a 5.5-acre anchorage 6 feet deep at the head of the channel; and a 7-acre anchorage 6 feet deep on the north side of the channel about 0.5 miles above the river mouth.

NANTUCKET HARBOR OF REFUGE ANCHORAGE, MASSACHUSETTS

Authorization.—River and Harbor Act of March 2, 1945, Public Law 14, 79th Congress.

Description.—The project would have included a 15-foot deep anchorage, 2,800 feet long and 300 to 1,000 feet wide, near the west side of the inner harbor; and a 15-foot deep fairway 200 feet wide between the anchorage and the main waterfront.

NEW BEDFORD AND FAIRHAVEN HARBOR, BRISTOL COUNTY, MASS.

Authorization.—River and Harbor Act of July 25, 1912, Public Law 241, 62nd Congress.

Description.—The project would have included an 18-foot deep channel, 100 feet wide, in the Acushnet River, extending about 1.3 miles from the then 25-foot anchorage at the north side of Fish Island to a proposed turning basin at the Belleville Avenue end of the upper New Bedford waterfront.

NEWBURYPORT HARBOR, ESSEX COUNTY, MASS.

Authorization.—River and Harbor Act of March 2, 1945, Public Law 14, 79th Congress.

Description.—The project plan provided for an additional 3 feet in depth in the entrance channel, access channel and turning basin. The authorization provided for an entrance channel 15 feet deep and 400 feet wide through existing entrance jetties, an access channel 12 feet deep and 200 feet wide for a distance of about 2.7 miles to Newburyport Harbor, and a 12-foot deep turning basin along the Newburyport waterfront. All elements were completed in 1958 to depths three feet less than authorized (i.e., a 12-foot-deep entrance channel, and a 9-foot-deep access channel and turning basin).

NOOKAGEE LAKE, MASS.

Authorization.—Flood Control Act of 1968.

Description.—The project would have provided for a multiple purpose earthfill dam and reservoir on the North Nashua River in Westminster for flood control, water quality and recreation.

PLEASANT BAY, MASS.

Authorization.—Flood Control Act of 1970.

Description.—The project would have provided for a stabilized inlet 1,000 feet wide through Nauset Beach with two jetties and sand bypassing measures; a channel through the beach, 20 feet deep and 200 feet wide into Chatham Harbor; closure of the existing Chatham Harbor Inlet between Nauset Point and Monomoy Island by a sand dike closure and sand fence barrier; 6-foot channels to the north connecting with Aunt Lydia's, Ryder and Round Coves and with Meeting House, Kescayo-Gansett, Areys, Paw Wah, Quanset and Crows Ponds; a jetty at Round Pond; and a 6-foot channel to the south connecting with Nantucket Sound.

SALEM HARBOR, ESSEX COUNTY, MASS.

Authorization.—River and Harbor Act of March 2, 1945, Public Law 14, 79th Congress.

Description.—The project would have included deepening of South River channel reaches from existing 6- and 8-foot depths to 10 feet. The 1945 authorization also included dredging a channel 8 feet deep by 100 feet wide from the existing 10-foot approach channel along the east side of Derby Wharf to an anchorage basin 8 feet deep and 500 feet long by 200 feet wide. This work was completed in 1957. The unconstructed deepening of the South River channel reaches, now maintained at 8-foot and 6-foot depths, is considered obsolete.

WINTHROP BEACH, MASS.

Authorization.—River and Harbor Act of 1950.

Description.—The project would have provided for construction of three additional groins. The project authorization provided for reconstruction of 400 feet of seawall, raising the height of 1,800 feet of seawall, riprap revetment as requried for maintenance along the reconstructed seawall, construction of 8 groins, and placement of sandfill between the groins. Much of the project was completed for all practical purposes by the Commonwealth of Massachusetts in 1959, with appropriate Federal reimbursement, involving reconstruction and raising the seawall, construction of five groins and replacement of sandfill.

LYNN HARBOR, MASS.

Authorization.—River and Harbor Act of 1954.

Description.—The project would have included enlargement of the turning basin to include the easterly 300 feet of existing Municipal Channel. The existing Federal channel and turning basin are at a 22-foot depth. The River and Harbor Act of 1935 authorized a depth of 25 feet for both the channel and existing turning basin. That work has never been accomplished.

LYNN HARBOR, MASS.

Authorization.—River and Harbor Act of August 30, 1935, Public Law 409, 74th Congress.

Description.—The project would have provided for deepening the existing channel and turning basin from 22 feet to 25 feet. The 1954 River and Harbor Act provided for enlarging the existing turning basin, with deepening to 25 feet. This work has never been accomplished.

MONOOSNOC BROOK, MASS.

Authorization.—River and Harbor Act of 1966.

Description.—The project plan provided for flood control channel improvements at Leominster in conjunction with an upstream reservoir, along Monoosnoc Brook, a tributary of the North Nashua River.

MONOOSNOC LAKE, WORCESTER COUNTY, MASS.

Authorization.—River and Harbor Act of November 7, 1966.

Description.—The project plan provided for an earthfill dam and reservoir for flood control storage on Monoosnoc Brook, upstream from Leominster, in the North Nashua River watershed.

TOWN NECK BEACH, CAPE COD CANAL TO PROVINCETOWN, MASS.

Authorization.—River and Harbor Act of 1960.

Description.—The project would have included widening about 6,500 feet of beach east of the eastern entrance to Cape Cod Canal to a 125-foot width and raising of the inshore end of the existing east jetty at the east entrance to the Canal.

BLACK RIVER HARBOR, ALCONA COUNTY, MICH.

Authorization.—Flood Control Act of 1965 and approved by resolutions adopted by the Committee on Public Works of the House of Representatives on December 15, 1970, and by the Committee on Public Works of the Senate on December 17, 1970.

Description.—The project would have improved the harbor for shallow-draft craft by constructing general navigation facilities consisting of breakwaters having an aggregate length of 1,780 feet, with recreational fishing facilities on the east breakwaters; a 10-foot-deep, 200-foot-wide approach channel decreasing in width to about 130 feet at the harbor entrance; an access channel 8 feet deep decreasing in width from 130 feet at the harbor entrance to 60 feet at the river mouth; and a river channel 6 feet deep, 60 feet wide and about 1,100 feet long with a turning area 100 feet wide at the upstream limit of the river channel.

FORESTVILLE HARBOR, MICH.

Authorization.—River and Harbor Act of 1968.

Description.—The project would have included construction of a recreational craft harbor of refuge consisting of two offshore breakwaters totaling about 2,240 feet in length with recreational fishing facilities on the main breakwater; an anchorage and maneuvering area of about 6 acres, 8 feet deep; and a wide flared approach channel 10 feet deep, decreasing in width to 160 feet between the breakwaters.

MIDDLE CHANNEL, SAINT CLAIR RIVER, MICH.

Authorization.—River and Harbor Act of July 24, 1946, Public Law 525, 79th Congress.

Description.—The project would have included widening and deepening the natural outlet channel of the Middle Channel, St. Clair River, into Lake St. Clair, to provide a recreational craft channel 100 feet wide and 8 feet deep. The project authorization provided for dredging the outlet of the north channel of the St. Clair River into Lake St. Clair. To accommodate environmental concerns and still satisfy small boat channel needs, the Director of Civil Works on June 16, 1969, approved a substitution of the Middle Channel for the authorized North Channel and designated the project name "Middle Channel (in lieu of "North Channel") St. Clair River, Michigan.

RED RUN DRAIN, LOWER CLINTON RIVER, MICH.

Authorization.—Flood Control Act of 1970.

Description.—The project would have consisted of deepening and widening Red Run Drain along its existing alignment and providing a trapezoidal concrete-lined channel downstream of the Oakland-Macomb County line; widening, deepening, and straightening the existing Clinton River from Red Run Drain to Moravian Drive west of Mt. Clemens and providing a trapezoidal earth channel for a distance of 33,600 feet. Incorporation of restrictions of the adjacent flood plains would have been required as a part of the plan to maintain a floodway to pass a portion of the flows. The project would have also provided a rectangular concrete-lined channel for a distance of 11,200 feet along the Clinton River from Moravian Drive to the Cut-Off Canal immediately east of Mt. Clemens; construction of a concrete-lined channel over the 11,500 feet of the existing Cut-Off Canal between the Clinton River and Lake St. Clair; modifications to 21 bridges and a total of 232 utility alterations; and general recreational development of project lands along the entire length of the project.

GRAND MARAIS HARBOR, MICH.

Authorization.—River and Harbor Act of June 14, 1880.

Description.—The project would have included for widening the inner portion of the channel from 250 feet to 300 feet. The overall authorization also provided for the following work which has been completed: dredging the channel to 18 feet from its natural depth; and constructing parallel piers 500 feet apart having an aggregate length of 4,407 feet. The uncompleted portion of the project, the channel widening, was reviewed for possible deauthorization in 1974. It was determined that the decline in the lumber industry since 1880 has eliminated the need for the proposed channel widening. Deauthorization was recommended under the procedures of Section 12, of Public Law 93-25 procedure. The project was removed from the list of projects eligible for Section 12 deauthorization by resolution of the House Committee on Public Works and Transportation on July 29, 1977.

KEWEENAW WATERWAY, HOUGHTON COUNTY, MICH.

Authorization.—River and Harbor Act of August 30, 1935, Public Law 409, 73rd Congress.

Description.—The uncompleted portion of the project being deauthorized consists of extending the lower entrance breakwater by 2,000 feet including the necessary alteration or replacement of structures due to channel deepening. The total project plan provided for flaring and widening the northern entrance; widening the stilling basin to a maximum of 1,000 feet; generally deepening and widening and revetting passages within the waterway; construction of a new cut-off channel 300 feet wide, southeast, of Princess Point; deepening the harbor of refuge at the southern entrance; flaring the southern entrance and extending the breakwater at the southern entrance 2,000 feet into Keweenaw Bay. The breakwater extension was intended to make the southern portion of the waterway less vulnerable to take storms. It was recommended by the Chief of Engineers in the First Annual Report, pursuant to Section 12, Public Law 93-251, to deauthorize the project. The project was removed from the deauthorization list by a resolution of the House Committee on Public Works and Transportation adopted on July 27, 1977.

ONTONAGON HARBOR, ONTONAGON COUNTY, MICH.

Authorization.—River and Harbor Act of 1962.

Description.—The River and Harbor Act of 1962 modified the project to provide for dredging a flared approach channel and outer 450 feet of entrance channel 23 feet deep; dredging the next 1,150 feet of entrance channel 22 feet deep; dredging the remainder of entrance channel and the basin to within 800 feet of the highway bridge 21 feet deep; removing the inner 955 feet of the west pier, and extending the basin westward for 1,750 feet, at a depth of 21 feet and a minimum width of 200 feet; constructing a sedimentation basin within the harbor, 30 feet deep, with a capacity of 155,000 cubic yards; reconstructing the outer 370 feet of east pier; and strengthening the remaining piers and raising them to an elevation of 8 feet above low water, except the outer 96 feet of the west pier.

SANILAC FLATS, SAGINAW RIVER, MICH.

Authorization.—Flood Control Act of 1958.

Description.—The project would have increased drainage by means of channel improvements on Middle Branch and South Branch, and a short reach of East Branch, including widening and deepening about 15.2 miles of the Middle Branch, Cass River, with a design channel bottom varying from 10 feet to 25 feet; and widening and deepening about 24.7 miles of the South Branch, Cass River, with the design channel bottom varying from 15 feet to 60 feet.

The entire project plan called for flood control measures on the Cass River, Flint River, Shiawassee River and the Tittabawassee River of the Saginaw River drainage basin. As authorized by the Flood Control Act of 1958, various flood control improvements were proposed at eight individual units along the Rivers of the basin. Flood control works at the units of Frankenmuth and Flint are complete, and detailed planning on the units of Shiawassee Flats and Vassar is actively underway. The common purpose of the Sanilac Flats unit and the other seven subelements of the Saginaw River Project (Frankenmuth, Flint, Shiawassee Flats, Vassar, Midland, Corunna and Owosso) is the improvement of flood control in their respective areas.

Three of the eight Saginaw River subelements are being deauthorized. The others are Corunna and Owosso.

CORUNNA, SAGINAW RIVER, MICH.

Authorization.—Flood Control Act of 1958.

Description.—The project would have provided flood protection by channel improvements, levee construction and related work including: construction of 1,500 feet of earth levee on the right bank; widening of two constrictive reaches of the river at, and downstream of, the mill dam; enlargement of the spillway capacity of the existing mill dam; and removal of the remains of an abandoned railway bridge at the tile plant.

The entire project plan provides for flood control measures on the Cass River, Flint River, Shiawassee River and the Tittabawassee River of the Saginaw River drainage basin. Flood control works at the units of Frankenmuth and Flint are complete, and detailed planning on the units of Shiawassee Flats and Vassar is actively underway. The common purpose of the Corunna unit and the other subelements of the Saginaw River project (Frankenmuth, Flint, Shiawassee Flats, Vassar, Midland, Sanilac Flats and Owosso) is the improvement of flood control in their respective areas.

Three of the eight Saginaw River subelements are being deauthorized. The others are Sanilac Flats and Owosso.

OWOSSO, SAGINAW RIVER, MICH.

Authorization.—Flood Control Act of 1958.

Description.—The project would have provided flood protection by enlarging the river channel from the Ann Arbor Railroad Bridge to the city sewage treatment plant; removing a portion of a building which encroaches on the river channel; removing four dams and underpinning of the Main Street Bridge, and providing scour protection at four bridges.

The entire project plan provides for flood control measures on the Cass River, Flint River, Shiawassee River and the Titabawassee River of the Saginaw River drainage basin. As authorized by the Flood Control Act of 1958, various flood control improvements were proposed at eight individual units along the Rivers on the basin. Flood control works at the units of Frankenmuth and Flint are complete and detailed planning on the units of Shiawassee Flats and Vassar is actively underway. The common purpose of the Owosso unit and the other subelements of the Saginaw River project (Frankenmuth, Flint, Shiawassee Flats, Vassar, Midland, Corunna and Sanilac Flats) is the improvement of flood control in their respective areas.

Three of the eight Saginaw River subelements are being deauthorized. The others are Sanilac Flats and Corunna.

BERRIEN COUNTY, MICH. (SAINT JOSEPH SHORE)

Authorization.—Flood Control Act of 1958.

Description.—The project would have provided for a plan for protection of the shore of the City of St. Joseph, Michigan, from Elm Street to Southern extremity of the state-protective works, comprising direct placement of suitable sand to form a protective beach with a berm elevation 10 feet above low water datum at the base of the bluffs and 50 feet in width at elevation 8 feet. The plan contemplated initiation of periodic nourishment at the earliest practicable date to prevent a material reduction in the width of the protective beach.

WARROAD RIVER AND BULL DOG CREEK, MINN.

Authorization.—Flood Control Act of 1962.

Description.—The plan of improvement for flood control provided for 34 miles of channel improvement along Warroad River, East Branch, Bull Dog Creek, County Ditch No. 10, and County Ditch No. 6, together with appurtenant works.

MISSISSIPPI RIVER BETWEEN MISSOURI RIVER AND MINNEAPOLIS, MINN.

Authorization.—River and Harbor Act of July 3, 1930.

Description.—The plan of improvement at Lock and Dam 3 provided for extending the upper guidewall about 600 feet to allow tows more distance to align for the lock chamber. The existing project plan provides for a 9-foot channel between the mouth of the Missouri River and Minneapolis, Minnesota, by construction of a system of locks and dams, supplemented by dredging. The St. Paul District portion of the project is essentially complete except for work to extend the guidewalls. Uncompleted guidewall extensions at Locks Nos. 4, 5, 5A, 7, 8, 9, and 10, currently classified by the Corps inactive and as separable elements of the overall project, are also being deauthorized.

HARRIET ISLAND HARBOR, MINN.

Authorization.—Section 101 of the River and Harbor Act of 1962.

Description.—The plan of improvement provided for general navigation facilities to accommodate 250 small craft. The project would have consisted of a short access channel and a maneuvering channel 70 feet wide, 925 long and 5 feet deep, and a riprap-protected dike at the upstream end of the harbor for protection from flood flows. Additional riprap and crushed stone protection on the slopes of the entrance and maneuvering channels would also have been provided.

BILOXI HARBOR, OLD FORT BAYOU, MISS.

Authorization.—River and Harbor Act of March 2, 1945, Public Law 14, 79th Congress.

Description.—The project plan provided for an entrance channel 6 feet deep, 50 feet wide, and about 1,800 feet long, extending from Back Bay of Biloxi into the mouth of Old Fort Bayou.

BUFFALO RIVER, MISS.

Authorization.—Flood Control Act of June 22, 1936, Public Law 738, 74th Congress.

Description.—The authorized project, which has not been constructed, would have provided for channel improvement on the lower end of the Buffalo River. The project would have consisted of the construction of an 8,000-foot diversion channel to divert the Buffalo River into the old channel of the Homochitto River, a 700-foot cutoff, and 7,900 feet of clearing and snagging along the Buffalo River. The diversion channel and cutoff would have been constructed to a 30-foot bottom width with 1 on 1.5 side slopes.

PASCAGOULA HARBOR, MAIN CHANNEL, MISSISSIPPI

Authorization.—River and Harbor Act of March 2, 1827.

Description.—The project plan provided for improvements to the harbor and removal of obstructions to navigation in Pascagoula River. The original project has been totally subsumed by subsequent authorizations.

ANGLER USE SITES, MISSOURI

Authorization.—Flood Control Act of 1966.

Description.—Angler use sites would have consisted of small parcels of land strategically located along the streams of the Meramec River Basin to serve as access and stopping-off points for float fishermen. Some nineteen sites were proposed, each providing sanitary drinking water and overnight camping facilities. The need for the nineteen angler use sites, authorized as part of the Comprehensive basin plan, no longer exists. This need has been met or is in procees of being met by facilities provided by the State of Missouri.

BRAYMER LAKE, SHOAL CREEK, MO.

Authorization.—Flood Control Act of 1965.

Description.—Braymer Lake would have been located on Shoal Creek in Caldwell and Livington Counties. The dam would have been an earthfill impoundment about 8,100 feet long with its top about 85 feet above the valley floor at the highest point. The mutipurpose pool would have covered about 11,500 acres and, at the top of the flood control pool, the lake would have covered about 19,500 acres. Braymer Lake is a project within the Grand River Basin Plan. The project was classified as inactive by the Corps in March of 1976.

BROOKFIELD LAKE, YELLOW CREEK, MO.

Authorization.—Flood Control Act of 1965.

Description.—Brookfield Lake would have been located on West Yellow Creek in Linn and Sullivan Counties. The dam would have been an earthfill impoundment about 4,800 feet long with its top about 90 feet above the valley floor at the highest point. The multipurpose pool would have covered about 4,600 acres and, at the top of the flood control pool, the lake would have covered about 7,100 acres. Brookfield Lake is a project within the Grand River Basin Plan. The project was classified as inactive by the Corps in March of 1976.

EAST MUDDY CREEK, MO.

Authorization.—Flood Control Act of 1965.

Description.—East Muddy Creek is a tributary to the Grand River Channel modification of 3.2 miles on East Muddy Creek was authorized as part of a basin-wide system. East Muddy Creek is a project within the Grand River Basin Plan. The project was classified as inactive by the Corps in March of 1976.

MERCER LAKE, MO.

Authorization.—Flood Control Act of 1965.

Description.—Mercer Lake would have been located on the Weldon River in Mercer County. The dam would have been an earthfill impoundment about 6,700 feet long with its top about 90 feet above the valley floor at the highest point. The multipurpose pool would have covered about 12,600 acres and, at the top of the flood control pool, the lake would have covered about 19,800 acres. Mercer Lake would have been a project within the Grand River Basin Plan. The project was classified as inactive by the Corps in March of 1976.

MISSISSIPPI RIVER AGRICULTURE AREA 12, MISSOURI

Authorization.—Flood Control Act of 1966.

Description.—The project was to have been located on the right bank of the Mississippi River, extending from river mile 288.0 to 293.0 above the mouth of the Ohio River in Pike County, Missouri. The authorization provided for raising and enlarging an existing levee and constructing 2.4 miles of cross levee and a drainage structure.

PATTONSBURG LAKE, MO.

Authorization.—Flood Control Act of 1965.

Description.—Pattonsburg Lake would have been located on the main stem of the Grand River in Daviess, Gentry and Harrison Counties. The dam would have been an earthfill structure, about 6,500 feet long, with its top about 104 feet above the valley floor at its highest point. The multipurpose pool would have covered about 42,000 acres and, at the top of the flood control pool, the lake would have covered about 77,000 acres. Pattonsburg Lake would have been a project within the Grand River Basin Plan. The project was classified as inactive by the Corps in March of 1976.

POMME DE TERRE LAKE (POWER PROJECT), MO.

Authorization.—Flood Control Act of 1954.

Description.—Pomme de Terre Lake is on the Pomme de Terre River in Hickory and Polk Counties. The dam is a composite earth and rock fill impoundment, 7,240 feet long, with its top about 140 feet above the valley floor at the highest point. The multipurpose pool covers about 7,820 acres, and, at the top of the flood control pool, the lake covers about 16,100 acres. The project lands include 10 public use areas and 1,316,000 visitor-days were recorded in 1982. The project is authorized to include hydropower and provisions were included in the project design for the future addition of hydropower. Deauthorization of the power project would have no consequences to the other authorized project purposes.

SANDY SLOUGH, REMEDIAL MEASURES, MISSOURI

Authorization.—River and Harbor Act of 1962.

Description.—Sandy Slough is located in Lincoln County, Missouri, on the right bank of the Mississippi River between miles 241.4

and 244.9, above the Ohio River. The project was to be a remedial measure to restore a suitable water depth for pleasure boating. Suitable conditions had existed in the slough prior to 1938 when a dike was constructed across the head of Sandy Island to contain the pool of Dam 25. Since that time, the slough has filled with silt and drift from the overbank area. These accumulations were formerly washed away by high water from the Mississippi River. Because this natural flushing has been restricted, dredging was thought to be necessary.

TRENTON LAKE, MO.

Authorization.—Flood Control Act of 1965.

Description.—Trenton Lake would have been located on the Thompson River in Grundy, Harrison and Mercer Counties. The dam would have been an earthfill structure about 2,650 feet long with its top about 97 feet above the valley floor at its highest point. The multipurpose pool would have covered about 32,000 acres, and, at the top of the flood control pool, the lake would have covered about 46,500 acres. Trenton Lake is a project within the Grand River Basin Plan. The project was classified as inactive by the Corps in March of 1976.

UPPER GRAND RIVER, MO.

Authorization.—Flood Control Act of 1965.

Description.—The authorized project included 62 miles of levees and 38 miles of channel modification along the main stem of the Upper Grand River and four tributaries—East Fork, Middle Fork, West Fork, and Wildcat Creek. The Upper Grand River project is within the Grand River Basin Plan. The project was classified as inactive by the Corps in March of 1976.

MILL LAKE, MO.

Authorization.—Flood Control Act of 1970.

Description.—Mill Lake would have been located on Mill Creek in Cass County. The dam would have been an earthfill structure, about 2,700 feet long, with its top about 76 feet above the valley floor at the highest point. The multipurpose pool would have covered about 360 acres, and, at the top of the flood control pool, the lake would have covered about 500 acres. Mill Lake is one element of a system of four lakes and a channel modification authorized to provide flood control to a heavily industrialized area of Kansas City, Missouri. All four lake projects are being deauthorized by the bill. The channel modification on the Blue River in Jackson County, Missouri, has received construction funding. The Mill Lake project was classified by the Corps as deferred in September of 1978 to consider including water supply as a project purpose.

LITTLE NEMAHA RIVER, NEMAHA COUNTY, NEB.

Authorization.—Flood Control Act of 1965.

Description.—The authorized project envisioned construction of levees along the Little Nemaha River from the vicinity of Brock, Nebraska, downstream to existing Missouri River tieback levees near the mouth. The Little Nemaha River project was classified as inactive by Corps in 1972 because of lack of local support.

GLEASON CREEK DAM, NEV.

Authorization.—Flood Control Act of 1960.

Description.—The project plan provided for construction of a reservoir with a gross storage capacity of 1,500 acre-feet for flood control. It was to be located on Gleason Creek, about 7 miles west of Ely, Nevada.

HUMBOLDT RIVER AND TRIBUTARIES, NEVADA

Authorization.—Flood Control Act of 1950.

Description.—The project would have provided for construction of 3 storage reservoirs and minor channel improvements.

NEWARK BAY, HACKENSACK AND PASSAIC RIVERS, N.J.

Authorization.—River and Harbor Act of 1954 and the River and Harbor Act of 1966.

Description.—The 1954 project would have provided for a 32 to 34-foot channel in Hackensack River, including an approach channel in Newark Bay from the branch channel at Port Newark Terminal and a 25-foot turning basin. The 1966 Act added authority to deepen two channels to 15 feet and 32 feet, respectively, in the Hackensack River. The work remaining to be done is the deepening of the Hackensack River to 32 feet and 15 feet.

DEL APACHE UNIT, SAN ACACIA TO BOSQUE, RIO GRANDE FLOODWAY, N. MEX.

Authorization.—Flood Control Act of June 30, 1948, Public Law 858, 80th Congress, and the Flood Control Act of 1950.

Description.—The project would have included channel rectification, levee enlargement and construction, and bank stabilization on the Rio Grande River between river mile 155 and 226 in the vicinity of Socorro, New Mexico. The project being deauthorized is a deferred separable element of the existing Rio Grande Floodway, New Mexico, project. Of the other elements, the Truth or Consequences Unit (river mile 123 to 129) is active but not yet constructed, the Espanola Valley Unit (river mile 366 to 394) is deferred and is also included for deauthorization in the bill. The Cochiti to Rio Puerco Unit (river mile 236 to 340) and the Albuquerque Unit (river mile 286 to 305) have beem completed.

ESPANOLA VALLEY UNIT, RIO GRANDE FLOODWAY, N. MEX.

Authorization.—Flood Control Act of June 30, 1948, Public Law 858, 80th Congress, and the Flood Control Act of 1950.

Description.—The project would have comprised channel rectification, levee enlargement and construction and bank stabilization on the Rio Grande River between river mile 366 and 394 in the vicinity of Espanola, New Mexico. The project is a deferred separable element of the existing Rio Grande Floodway, New Mexico, project. Of the other elements, the Truth or Consequences Unit (river mile 123 to 129) is active but not yet constructed; the San Acacia to

Bosque del Apache Unit (river mile 155 to 226) is deferred and included for deauthorization in the bill, and the Cochiti to Rio Puerco Unit (river mile 236 to 340) and the Albuquerque Unit (river mile 286 to 305) have been completed.

FIVE MILE CREEK, UNIT 2, ALLEGANY, N.Y.

Authorization.—Flood Control Act of July 24, 1946, Public Law 526, 79th Congress.

Description.—The project would have consisted of constructing about 2,710 feet of earthen dike; relocating the channel of Lippert Run for a distance of about 1,050 feet; raising streets in 2 places; and providing for internal drainage. Restudy of the project under the Upper Allegheny River Basin study indicated a lack of economic feasibility.

ALLEGHENY RIVER, UNIT 1, ALLEGANY, N.Y.

Authorization.—Flood Control Act of July 24, 1946, Public Law 526, 79th Congress.

Description.—The project would have consisted of constructing about 4,000 feet of earthen dike and about 400 feet of floodwall; raising streets in 2 places; and providing for internal drainage. Restudy of the project under the Upper Allegheny River Basin study indicated a lack of economic feasbility.

HUDSON RIVER, NEW YORK CITY TO ALBANY (12-FOOT HARBORS), N.Y.

Authorization.—River and Harbor Act of June 25, 1910, Public Law 264, 61st Congress.

Description.—The project plan provided for widening the harbors in front of the Cities of Troy and Albany, New York.

HUDSON RIVER, NEW YORK CITY TO ALBANY (27-FOOT CHANNEL), N.Y.

Authorization.—River and Harbor Act of March 3, 1925, Public Law 585, 68th Congress.

Description.—The project would have consisted of 1,300 linear feet of 27-foot-deep channel at Albany, New York.

OGDENSBURG HARBOR, N.Y.

Authorization.—River and Harbor Act of August 30, 1935, Public Law 409, 73rd Congress.

Description.—The project would have involved the removal of hard material shoals in the southwest part of the lower basin. The project would have provided for enlarging and deepening the lower basin to 21 feet and removal of an elevator wharf. The shoals are out of the way, and removal is now considered unnecessary.

OSWEGO HARBOR, N.Y.

Authorization.—River and Harbor Act of July 3, 1930, Public Law 520, 71st Congress.

Description.—The project plan provided for construction of arrowhead breakwaters; deepening (1) the outer harbor between the arrowhead breakwaters, (2) the west outer harbor east of Delaware, Lackawanna and Western coal dock, and (3) the Oswego River north to Seneca Street, to 21 feet; and deepening the west outer harbor, west of the Delaware, Lackawanna and Western coal dock, to 16 feet.

RED CREEK, N.Y.

Authorization.—Flood Contol Act of 1966.

Description.—The project plan provided for improvements of 13,405 feet of channel of the main stem of Red Creek and a total of 24,540 feet of channel improvements on tributaries within the towns of Brighton and Henrietta, New York; construction of two sections of levees totalling approximately 8,590 feet in length; removal, replacement or enlargement of obstructive bridges, culverts, and conduits; and modification of utilities to fit enlarged stream channels.

TICONDEROGA RIVER, ESSEX COUNTY, N.Y.

Authorization.—River and Harbor Act of March 3, 1881.

Description.—The project plan provided for a channel 8 feet deep and 100 feet wide from a 8-foot contour in Lake Champlain to the railroad bridge, then 8 feet deep and 60 feet wide to the Village of Ticonderoga. The project is about 39 percent completed, but no work has been done since 1892.

CAPE VINCENT HARBOR, N.Y.

Authorization.—River and Harbor Act of March 2, 1945, Public Law 14, 79th Congress.

Description.—A small portion behind and adjacent to the existing breakwater has not been dredged to full project depth. The project plan provided for a depth of 16 feet behind and adjacent to the breakwater and a depth of 20 feet in the harbor downstream. Deauthorization was recommended by the Chief of Engineers in his 1st Annual Report pursuant to section 12(c) of the Water Resources Development Act of 1974, Public Law 93-251; however, by resolution of the House committee on Public Works and Transportation, July 1977, the authorization was continued.

EAST CHESTER CREEK, N.Y.

Authorization.—River and Harbor Act of 1950.

Description.—The project plan provided for construction of a check dam and a channel 5 miles long and 10 feet deep.

EAST ROCKAWAY INLET TO ROCKAWAY INLET, PART 2, NEW YORK

Authorization.—Flood Control Act of 1965.

Description.—The project plan provided for construction of a hurricane barrier across the entrance of Jamaica Bay, dikes, levees, floodwalls, fill placements, stairways, ramps, road raising, and other appurtenant works. The project also would have included construction of beach erosion control work. The beach erosion portion is currently underway, with periodic nourishment work. No hurricane protection work has been done.

HAMMONDSPORT, GLEN BROOK (GLEN BROOK FLUME), N.Y.

Authorization.—Flood Control Act of August 18, 1941, Public Law 228, 77th Congress.

Description.—The project was designed to increase the channel capacity of Glen Brook by widening, deepening and straightening the upper 700 feet; constructing reinforced concrete cascades at the bend; clearing the channel above the flume; and constructing timber check dams in the channel above the flume to reduce debris deposited in the flume.

ATLANTIC INTRACOASTAL WATERWAY-PELTIER CREEK, CARTERET COUNTY, N.C.

Authorization.—River and Harbor Act of 1954.

Description.—The authorized project involved a dead-end side channel of the Atlantic Intracoastal Waterway and consisted of a channel 12 feet deep and 90 feet wide and a basin 12 feet deep, 200 feet wide, and 600 feet long, in Peltier Creek. A 6-by-50 foot channel was constructed in August and September of 1955 using emergency maintenance funds provided under authority of Section 3 of the River and Harbor Act of March 2, 1945. On June 26, 1957, the Corps of Engineers classified the 12-foot deep project as inactive and proposed that the completed 6-by-50 foot channel continue to be maintained.

ATLANTIC INTRACOASTAL WATERWAY TIDAL LOCK IN SNOWS CUT, N.C.

Authorization.—River and Harbor Act of January 21, 1927, Public Law 560, 70th Congress.

Description.—The Tidal Lock would have been located in Snows Cut between Myrtle Sound and Cape Fear River. Snows Cut and the Tidal Lock are a part of the Atlantic Intracoastal Waterway authorization for a 12-by-90-foot channel from Beaufort to the Cape Fear River. Construction of this portion of the Waterway was completed in 1932. Originally, the Lock was considered necessary for the Waterway to protect the Snows Cut Channel against destructive current velocities due to the apparent difference in elevation of certain stages of tides in Myrtle Grove Sound and the Cape Fear River. The other elements of the project under the authorization have been completed and are being maintained. Navigation will not be adversely affected by the omission of the Tidal Lock, which is the only element being deauthorized. No Tidal Lock has been found to be necessary in Snows Cut to protect the channel against current velocities, and its construction cannot be economically justified at this time. The Tidal Lock was classified by the Corps as inactive in 1963.

CAROLINA BEACH AND VICINITY, SOUTH AREA, N.C.

Authorization.—Flood Control Act of 1962.

Description.—The project plan provided for construction of a dune with a base generally bordering at or near the building line, having a crown width of 25 feet at an elevation of 13 feet above mean sea level (MSL); integral construction of a beach berm having a crown width of 50 feet at elevation 10 feet MSL, and a temporary, normal beach berm having a crown width of 50 feet at elevation 7 feet MSL, extending about 15,200 feet from the southern limits of Carolina Beach to a point about 1,550 feet south of the southern limits of Kure Beach, together with a transition section at 7 feet MSL, extending 2,600 feet south of the southern end of the dune, and a transition section extending 1,000 feet north of the southern town limits of Carolina Beach. The project plan also called for Federal participation in the cost of beach nourishment for a period not to exceed 10 years from the year of initial placement.

The following improvements within the town limits of Carolina Beach were also authorized: restoration of the dune with a base generally bordering at or near the building line, having a crown width of 245 feet at an elevation 15 feet above MLW; construction of an integral beach berm with a crown width of 50 feet at elevation 12 and beachfill extending about 14,000 feet from the northern to the southern limits of Carolina Beach; and Federal participation in the cost of beach nourishment for a period not to exceed 10 years from the year of initial placement. Initial construction of this part of the project was completed in 1982. Only the unconstructed part of the project south of the town limits of Carolina Beach is being deauthorized.

FORT MACON STATE PARK, N.C.

Authorization.—River and Harbor Act of 1962 and the Flood Control Act of 1962.

Description.—This project would have consisted of initial restoration of 7,750 feet of beach fill to an elevation of 8 feet, with a crown width of 100 feet; construction of a stone revetment to an elevation of 12 feet and a length of about 250 feet; construction of a stone masonry wall to an elevation of 12 feet and a length of about 350 feet; and construction of a stone groin to an elevation of 9 feet and a length of about 1,670 feet.

The project is about 90 percent complete. The State of North Carolina is the cooperating agency and has performed all construction to date. Remaining work to be accomplished consists of capstone for the stone work and portions of the beach fill and replenishment. Federal participation in the remaining work is the only element being deauthorized.

The beach area at Fort Macon State Park has been used as a disposal area for sand dredged during maintenance of the Beaufort Harbor project. No additional fill associated with the authorized Fort Macon project are projected to be required. In addition, the stonework which is in place appears to be holding up well, without the authorized capstone.

MOREHEAD CITY HARBOR, N.C.

Authorization.—River and Harbor Act of August 26, 1937, Public Law 392, 75th Congress.

Description.—This project feature would have included dual rock jetties at Beaufort Inlet. The jetties were to be rubble-mound structures with top elevation of 14 feet above mean sea level. The general configuration of the dual jetty system was to be in the shape of an arrowhead, with the jetties being parallel for the seawardmost 1,500 feet. The West jetty length was to be 10,150 feet and the east jetty length was to be 9,150 feet. The jetties are the only element of the overall project being deauthorized.

OCRACOKE ISLAND, N.C.

Authorization.—Flood Control Act of 1965.

Description.—The plan for beach stabilization and hurricane tidal protection project for Ocracoke Island provided for protection of the ocean frontage from hurricane and erosion damage, a beach fill with a berm 50 feet wide at an elevation of 7 feet above mean sea level, a feeder beach near the north end of the island, periodic nourishment for an initial period of 10 years, sand fences and vegetation. The Flood Control Act of 1965 also provided for a project at Ocracoke Village, providing for: restoration and stabilization of the Ocracoke Village frontage; beach fill to provide a berm with top elevation equal to that of the existing bank, but not exceeding 7 feet above mean sea level; vegetation and drainage facilities; and periodic nourishment for an initial period of 10 years.

OCRACOKE ISLAND-VILLAGE SHORE, NORTH CAROLINA

Authorization.—Flood Control Act of 1965.

Description.—The plan for beach stabilization and hurricane tidal protection project for Ocracoke Island provided for restoration and stabilization of the Ocracoke Village frontage; beach fill to provide a berm with top elevation equal to that of the existing bank, but not exceeding 7 feet above mean sea level; vegetation and drainage facilities; and periodic nourishment for an initial period of 10 years.

The above authorization also provided for a project for Ocracoke Island Hurricane Protection, which project provided for protection of the ocean frontage from hurricane and erosion damage; a beach fill with a berm 50 feet wide at an elevation of 7 feet above mean sea level in front of a dike with a top width of 25 feet at an elevation of 11 feet above mean sea level; a feeder beach near the north end of the island; periodic nourishment for an initial period of 10 years; sand fences; and vegetation.

OCRACOKE INLET JETTY, HYDE COUNTY, N.C.

Authorization.—River and Harbor Act of 1960.

Description.—The project plan included a channel across the ocean bar, 18 feet deep, 400 feet wide, and the deferred construction of a single jetty, extending from Ocracoke Island to the 20-foot depth in the Atlantic Ocean. The 18-by-400-foot dredged channel was completed in fiscal year 1972. No design or construction work has been done on the jetty and only the jetty is being deauthorized.

ROANOKE RIVER, HALIFAX COUNTY, N.C.

Authorization.—River and Harbor Act of June 20, 1938, Public Law 685, 75th Congress.

Description.—The project would have included a channel 12 feet deep and 150 feet wide in the Roanoke River from Albemarle

Sound to one mile above Plymouth, from there 10 feet deep and 100 feet wide to Hamilton, from there 8 feet deep and 80 feet wide to Palmyra Landing, and from there 5 feet deep and 50 feet wide to Weldon, a total distance of 131 miles. In 1941, the project was completed up to Palmyra Landing, 50 miles below Weldon, which is the practical limit for providing improvement for navigation by channel improvement alone. This completed portion of the project will continue to be maintained. The 50-mile portion of the project providing for a channel 5 feet deep and 50 feet wide above Palmyra Landing to Weldon, North Carolina, by dredging, snagging, and regulation has been deferred for restudy. Only the unconstructed portion of the project above Palmyra Landing is being deauthorized.

OHIO RIVER, OHIO

Authorization.—Flood Control Act of 1937.

Description.—The project would have provided for additional beartraps, guardwalls, and extension of guidewalls. These project features were part of the old low-lift navigable dams along the Ohio River. A high-lift lock and dam system has now replaced the old dam system; therefore, these features are now considered obsolete.

BURLINGTON, OHIO

Authorization.—Flood Control Act of June 28, 1938, Public Law 761, 75th Congress.

Description.—The project would have been located in Lawrence County, Ohio, on the Ohio River, 313 miles below Pittsburgh. The project would have consisted of an earth levee, having a crown width of 8 feet, a length of 7,030 feet, an average height of 4.4 feet, 1-on-3 side slopes, and three feet of freeboard over the highest flood of record, which occurred in 1937.

CHESAPEAKE, OHIO

Authorization.—Flood Control Act of June 28, 1938, Public Law 761, 75th Congress.

Description.—The project was to be located in Lawrence County, Ohio, on the Ohio River, 309 miles below Pittsburgh, opposite Huntington, West Virginia. The project would have consisted of an earth levee, having a crown width of 8 feet, a length of 4,850 feet, an average height of 13.9 feet, 1-on-3 side slopes, and three feet of freeboard over the highest flood of record, which occurred in 1937.

EMPIRE-STRATTON, OHIO

Authorization.—Flood Control Act of June 28, 1938, Pulic Law 761, 75th Congress.

Description.—The project would have consisted of construction of portable pumping units, interceptor sewer systems and drainage structures.

MARTINS FERRY, BELMONT COUNTY, OHIO

Authorization.—Flood Control Act of June 28, 1938, Public Law 761, 75th Congress.

Description.—The project would have consisted of construction of about 12,000 feet of flood wall with 8 temporary closures; bank protection for reaches totalling about 8,700 feet; and 6 pumping plants, with other internal drainage facilities.

The flood damage reduction project at this location was reexamined by the Pittsburgh District during the Metropolitan Wheeling Urban Study and was found not to be economically feasible.

POWHATAN POINT, BELMONT COUNTY, OHIO

Authorization.—Flood Control Act of June 29, 1938, Public Law 761, 75th Congress.

Description.—The project would have involved construction of 5,490 feet of earth levee; 5,330 feet of concrete wall; flood gates; the installation of pumps; and the relocation of highways.

The flood damage reduction project at this location was reexamined by the Pittsburgh District during the Metropolitan Wheeling Urban Study and was found not to be economically feasible.

PROCTORVILLE, OHIO

Authorization.—Flood Control Act of June 28, 1938, Public Law 761, 75th Congress.

Description.—The project was to be located in Lawrence County, Ohio, on the Ohio River, 305 miles below Pittsburgh. The project would have consisted of a levee with an average height of 28.2 feet and side slopes 1 on 3 and a concrete wall with a length of 2,110 feet and an average height of 29.8 feet, providing three feet of freeboard over highest flood of record, which occurred in 1937.

SOUTH POINT, OHIO

Authorization.—Flood Control Act of June 28, 1938, Public Law 761, 75th Congress.

Description.—The project was to be located in Lawrence County, Ohio, on the right bank of the Ohio River, 317 miles below Pittsburgh. The project would have consisted of an earth levee, having a crown width of 8 feet; a length of 1,630 feet; an average height of 9.7 feet; 1-on-3 side slope; 1,340 feet of concrete wall having an average height of 23.5 feet; and three feet of freeboard over the highest flood of record, which occurred in 1937.

COLUMBIA DRAINAGE DISTRICT NO. 1, OREGON

Authorization.—Flood Control Act of 1950.

Description.—The project would have raised and restructured 9.3 miles of existing levee and would have provided a tidebox and pumphouse.

DEER ISLAND DRAINAGE DISTRICT, OREGON

Authorization.—Flood Control Act of 1950.

Description.—The project would have provided for strengthening about 36,000 feet of existing levees and increasing pump capacity to protect 3,920 acres of Deer Island.

SHELTON DITCH, MARION COUNTY, OREG.

Authorization.—Flood Control Act of 1950.

Description.—The project would have included construction of a concrete lining for Shelton Ditch, 2.3 miles long, through Salem, Oregon.

UMPQUA RIVER-SCHOLFIELD RIVER, OREG.

Authorization.—Flood Control Act of September 22, 1922, Public Law 362, 67th Congress, and the Flood Control Act of 1954.

Description.—The project would have provided a 12-foot-deep and 100-foot-wide channel for a distance of 2 miles in the Scholfield River. The entrance would have been widened to 300 feet for a distance of 500 feet.

CASCADIA LAKE, OREG.

Authorization.—Flood Control Act of 1962.

Description.—The project would have provided for a rockfill embankment 1,170 feet long and 270 feet above streambed. Usable storage capacity of the lake was to be 145,000 acre-feet.

GATE CREEK LAKE, OREG.

Authorization.—Flood Control Act of 1962.

Description.—The project would have provided for a gravel embankment 1,200 feet long and 270 feet above streambed. Usable storage capacity of the lake was to be 50,000 acre-feet.

GRANDE RONDE LAKE, OREG.

Authorization.—Flood Control Act of 1965.

Description.—The authorized project, located on the Grand Ronde River near La Grande, Oregon, consisted of a dam, reservoir, and appurtenant facilities to provide for flood control, irrigation, sports fishing, recreation, anadromous fish, water supply, and downstream power. The project plan included an embankment dam 194 feet high with a crest length of 2,270 feet, spillway, and outlet works to regulate flow. The reservoir capacity would have been 160,000 acre-feet, 8,000 of which would have been dead storage. Nine miles of state highway would have been relocated. Fish passage facilities would have been required to compensate for losses to wildlife because of the reservoir. About 600 acres of land would have been required for the planned relocation of facilities.

GRANDE RONDE VALLEY, OREG.

Authorization.—Flood Control Act of 1950.

Description.—The project was to be a local flood control project through the Grande Ronde Valley from the Town of Elgin to the Towns of La Grande and Union. It would have consisted of levees, channel clearing, and straightening and realignment of the Grande Ronde River, and Catherine, Ladd, and Willow Creeks. The project is one of several projects in the State of Oregon authorized by the Flood Control Act of 1950 which are being deauthorized in the bill. Those other projects are: Deer Island Drainage District; Shelton

Ditch, Marion County; Holley Lake; Pendleton Levees, Riverside Area; and Columbia Drainage District #1.

HOLLEY LAKE, OREG.

Authorization.—Flood Control Act of 1950.

Description.—The project would have included an earthfill embankment 4,700 feet long and 150 feet above streambed. Usable storage capacity of the lake was to be 90,000 acre-feet.

PENDLETON LEVEES, RIVERSIDE AREA, OREG.

Authorization.—Flood Control Act of 1950.

Description.—The project plan included strengthening and extending existing levees upstream of Pendleton along the Umatilla River and constructing new levees in the Riverside area. The Riverside area levees were never constructed due to lack of local support. This is the only part of the project that remains incomplete and is being deauthorized.

WILLAMETTE RIVER ABOVE PORTLAND AND YAMHILL RIVER, OREG.

Authorization.—River and Harbor Act of June 3, 1896, as modified by the River and Harbor Act of June 28, 1938, Public Law 761, 75th Congress.

Description.—The project plan provided for widening and deepening the Willamette and Yamhill Rivers to various widths and depths. About 18 percent of the authorized project has been completed. The uncompleted element is no longer a critical navigational need.

WILLAMETTE RIVER AT WILLAMETTE FALLS, OREG.

Authorization.—River and Harbor Act of June 25, 1910, Public Law 264, 61st Congress, and the River and Harbor Act of March 2, 1945, Public Law 14, 79th Congress.

Description.—The project would have included modifying the original locks to provide for a new single-lift main lock and guard lock. The original project authorization provided for purchase and rehabilitation of an existing canal and six locks. The project element being deauthorized in the bill is a single-lift lock and guard lock to replace the original six locks. The project is listed on the National Register of Historic Places.

BRACKENRIDGE, TARENTUM, AND NATRONA, PA.

Authorization.—Flood Control Act of June 28, 1938, Public Law 761, 75th Congress.

Description.—The project would have consisted of construction of approximately 17,250 feet of concrete wall with floodgates and installation of pumps and internal drainage facilities.

CHESTER RIVER, DELAWARE COUNTY, PA.

Authorization.—River and Harbor Act of March 2, 1919, Public Law 323, 65th Congress.

Description.—The project would have provided for an 8-foot-deep channel from the mouth of the Chester River upstream for 950 feet.

LEETSDALE, ALLEGHENY COUNTY, LEVEE AND DRAINAGE FACILITY, PA.

Authorization.—Flood Control Act of June 28, 1938, Public Law 761, 75th Congress.

Description.—The project would have consisted of the construction of 4,200 feet of earth levee with flood gates and the installation of pumps.

MUDDY CREEK LAKE, PA.

Authorization.—Flood Control Act of 1962.

Description.—The project would have consisted of construction of a rolled earth embankment 6,900 feet long, with a height of 64 feet and with an uncontrolled sidehill spillway and reinforced concrete rectangular conduit intakes. The project would have required the relocation of one mile of highway and the alteration of several secondary roads and various utilities, as required.

NEVILLE ISLAND, PA.

Authorization.—Flood Control Act of June 28, 1938, Public Law 761, 75th Congress.

Description.—The project would have consisted of the construction of 19,800 feet of earth levee, the construction of 1,200 feet of concrete wall, the construction of flood gates, the installation of pumps, and the relocation of highways.

NEW KENSINGTON AND PARNASSUS, PA.

Authorization.—Flood Control Act of June 28, 1938, Public Law 761, 75th Congress.

Description.—The project would have consisted of the construction of approximately 8,700 feet of concrete wall and approximately 1,500 feet of sheet piling wall, and the installation of 2 pumps and internal drainage facilities.

ROCHESTER, BEAVER COUNTY, PA.

Authorization.—Flood Control Act of June 28, 1938, Public Law 761, 75th Congress.

Description.—The project would have consisted of the construction of 5,000 feet of concrete wall with flood gates, the installation of pumps, and the relocation of highways.

TREXLER DAM AND LAKE, LEHIGH COUNTY, PA.

Authorization.—Section 203 of the Flood Control Act of 1962.

Description.—The multipurpose Trexler Dam project is a component of the comprehensive plan for the immediate and long-range development and use of the water resources of the Delaware River Basin. The project has not been initiated because of lack of local cooperation. During the years since the dam was authorized, Lehigh County has witnessed the emergence of a new concern for preservation of the Region's natural environment and of a firm conviction that better alternatives exist and can be pursued to achieve the project's purpose.

YOUGHIOGHENY RIVER CANALIZATION, PENNSYLVANIA

Authorization.—River and Harbor Act of 1930, Public Law 395, 71st Congress.

Description.—The project would have consisted of the canalization of the river from its mouth 19.3 miles to West Newton, Pennsylvania, in order to provide a navigable depth of 9 feet by the construction of two locks and dams. Recent restudy of the project indicates lack of economic feasibility for the canalization of the Youghiogheny River as authorized.

AQUASHICOLA LAKE, PA.

Authorization.—Flood Control Act of 1962.

Description.—The project plan provided for construction of an earthfill dam 2,000 feet in length and 110 feet high, having 2,000 acre-feet of storage for flood control and 25,000 acre-feet of water supply.

MAIDEN CREEK LAKE EARTH DAM, PA.

Authorization.—Flood Control Act of 1962.

Description.—The project would have consisted of an earth and rockfill dam 2,400 feet long with 74,000 acre-feet of storage for water supply and 38,000 acre-feet for flood control.

FAJARDO HARBOR, PUERTO RICO

Authorization.—River and Harbor Act of March 2, 1945, Public Law 14, 79th Congress.

Description.—The project plan provided for an approach channel 28 feet deep and 200 feet wide to and including a turning basin of the same depth covering 10.5 acres in front of a deep-water terminal to be provided by local interests.

GUAYANES HARBOR, PUERTO RICO

Authorization.—River and Harbor Act of August 26, 1937, Public Law 392, 75th Congress.

Description.—The project plan provided for an approach channel 23 feet deep and 300 feet wide, and an anchorage area of the same depth, 2,000 feet long and 1,300 feet wide.

GREAT SALT POND, NEWPORT COUNTY, R.I.

Authorization.—River and Harbor Act of March 2, 1945, Public Law 14, 79th Congress.

Description.—The project element being deauthorized would have included a 1,200-foot-long north jetty at the entrance to Great Salt Pond and a 12-foot-long access channel and basin in the Inner Harbor (Trim Pond). The 1945 authorization provided for two jetties at the entrance to Great Salt Pond. A 1,700-foot-long south jetty has been completed. It also provided for an 18-foot entrance channel with a central depth of 25 feet, which has also been completed. No work has been done on the north jetty or the Inner Harbor access channel and basin.

HARBOR OF REFUGE, BLOCK ISLAND, R.I.

Authorization.—River and Harbor Act of July 25, 1912, Public Law 241, 62nd Congress.

Description.—The project feature being deauthorized would have provided for two 15-foot anchorages in the Outer Harbor. The existing project at Block Island, by way of earlier authorization (in 1870) and work completed in 1916, includes: a 15-foot access channel to the Inner Harbor, two breakwaters, a 15-foot inner anchorage, a 15-foot inner basin, and a T-shaped jetty.

PAWCATUCK RIVER, WASHINGTON COUNTY, R.I.

Authorization.—River and Harbor Act of June 3, 1896.

Description.—The project would have included widening the middle section of Little Narragansett Bay channel by 100 feet (to 200 feet); widening a 5,000-foot section of river channel at Avondale by 100 feet (to 200 feet); and deepening by 3 feet a 2,000-foot section of the upper river channel. The project was to include a channel 10 feet deep and 200 feet wide from Stonington Harbor, Connecticut, through Little Narragansett Bay and the mouth of the Pawcatuck River at Avondale (Westerly), Rhode Island, thence 100 feet wide to the lower wharves at Westerly about one/half mile further upstream. The project was completed in 1949 except for (1) the middle section of the Little Narragansett Bay channel and a the 5,000-foot section of the river channel at Avondale, both of which were dredged to only a 100-foot width, and (2) a 2,000-foot section of the upper channel which was dredged to only 7 feet, rather than 10.

PROVIDENCE RIVER AND HARBOR, R.I.

Authorization.—River and Harbor Act of 1965.

Description.—The project would have provided for a branch channel along the India Point Waterfront, 30 feet deep, 150 feet wide, and about 1,000 feet long.

The project authorization provided for deepening the main ship channel to 40 feet, for which work was completed in early 1976, and the India Point Channel, for which no work has been done. The India Point Channel work is now considered to be obsolete.

WESTERLY HURRICANE PROTECTION, RHODE ISLAND

Authorization.—Flood Control Act of 1965.

Description.—The project would have provided multiple purpose hurricane protection, beach protection and recreation by raising and widening about 3 miles of beach; constructing a gated control structure at the eastern end of Weekapaug Inlet and a rock-faced dike at the western end; initially constructing three large groins; and constructing, on a deferred basis, 31 small rock groins to stabilize the beach.

CHARLESTON HARBOR, FT. MOULTRIE ANCHORAGE AREA, S.C.

Authorization.—River and Harbor Act of March 2, 1945, Public Law 14, 79th Congress.

Description.—The project would have provided for modification of the Charleston Harbor project to provide an anchorage basin 30 feet deep in the water area between Castle Pinckney and Fort Moultrie. The most essential portion of the project has been constructed and is currently maintained every two years. The anchorage area, as authorized, included a rectangular area with dimensions of 4,000 feet by 13,000 feet. The anchorage area, as constructed, provides an irregular shaped area with dimensions 2,200 feet by 3,050 feet by 7,380 feet.

MYRTLE BEACH, ANCHORAGE BASIN, S.C.

Authorization.—River and Harbor Act of March 2, 1945, Public Law 14, 79th Congress.

Description.—The project would have provided for modification of the Atlantic Intracoastal Waterway Project to construct an anchorage basin with a width of 125 feet, a length of 335 feet, and a depth of 12 feet at mean low water.

REEDY RIVER, GREENVILLE, S.C.

Authorization.—Section 201 of the Flood Control Act of 1965 and approved by resolution of the Committee on Public Works of the House of Representatives, adopted December 15, 1970, and resolution of the Committee on Public Works of the Senate, adopted December 17, 1970.

Description.—Reedy River is located in northwestern South Carolina, entirely within Greenville and Laurens Counties. Improvements proposed were in and near the City of Greenville. The work was directed toward reduction of flood damages occurring along Reedy River in Greenville and vicinity. The plan included 5.4 miles of channel enlargement above Camperdown Falls in the city and 2.4 miles of channel widening below the falls.

CUMBERLAND RIVER ABOVE NASHVILLE, TENN.

Authorization.—River and Harbor Act of August 5, 1886.

Description.—The project plan initially included construction of Locks and Dams 1 through 17 and Lock and Dam 21 to secure (1) 6-foot navigation at low water from Nashville, Tennessee, to Waitsboro Shoals, Kentucky, a distance of 324.6 miles and (2) 4-foot navigation from Waitsboro Shoals to Burnside, Kentucky, a distance of three miles. Locks and Dams 1 through 8 and 21 were constructed. Larger multipurpose projects authorized in 1938 and 1946 precluded construction of the other authorized locks and dams. Subsequent to their construction, the development of larger multipurpose projects replaced the initially-authorized Locks and Dams 1 through 8 and 21.

HIWASSEE RIVER, POLK AND BRADLEY COUNTIES, TENN.

Authorization.—River and Harbor Act of August 14, 1876.

Description.—The project would have provided improvements for navigation purposes of 35 miles of the Hiwassee River, between its mouth and the mouth of the Ocoee River, including spur dikes, training walls, submerged sills, bank protection and dredging.

ROSSVIEW LAKE, TENN. AND KY.

Authorization.—Flood Control Act of June 28, 1938, Public Law 761, 75th Congress.

Description.—Rossview Dam would have been located on the Red River, 17.4 miles above its confluence with the Cumberland River at Clarksville, Tennessee. The earthfill dam would have been 1,750 feet in length and would have had a maximum height of 146 feet above the streambed. The impoundment would have been extended approximately 40 miles upstream from the damsite in Tennessee into Kentucky. The project was previously recommended for deauthorization by the Chief of Engineers, but was subsequently removed from the deauthorization list.

ALABAMA-COOSA RIVER BASIN, JACKS RIVER LAKE, TENN.

Authorization.—River and Harbor Act of March 2, 1945, Public Law 14, 79th Congress.

ALPINE, TEX.

Authorization.—Section 201 of the Flood Control Act of 1965 and approved by resolution of the Committee on Public Works of the House of Representatives, dated April 11, 1974, and resolution of the Committee on Public Works of the Senate, dated May 31, 1974.

Description.—The project was to be in the vicinity of Alpine, Texas, and was to include: an earthfill dam 6,300 feet long and 77 feet high on Alpine Creek for flood control, municipal and industrial water supply, and recreation; a diversion channel, and a saddle dam 2,100 feet long and 42 feet high, to control West Moss Creek inflows to the reservoir; a 3-mile, 4,000 cubic-foot-per-second diversion channel from Paisano Creek to the reservoir; and a conveyance channel 3,900 feet long between West Moss and Alpine Creeks to prevent permanent ponding behind the saddle dam on West Moss Creek.

BRAZOS ISLAND HARBOR, TEX.

Authorization.—River and Harbor Act of 1960.

Description.—The project would have included widening Brownsville Channel to 300 feet at a depth of 36 feet from former Goose Island passing basin to the turning basin extension, thence at a width of 500 feet and same depth to the turning basin proper; deepening to 36 feet an area in the southeast corner of the turning basin; maintaining two existing basins of the fishing harbor and a connecting channel; constructing a third basin, with necessary connecting channel; and extending Brazos Island Harbor north jetty seaward 1,000 feet. The existing project consists of 2.6 miles of offshore channel, 21.5 miles of inside channels, and dual jetties at the gulf entrance. The controlling depth is 36 feet.

BRAZOS RIVER, VELASCO TO OLD WASHINGTON, TEX.

Authorization.—River and Harbor Act of June 13, 1902.

Description.—This authorization provided for removal of snags and overhanging trees and for narrowing the river at shoals by use of training walls and spur dikes to obtain greater depths along the river. The project was practically completed in 1916 and some maintenance was performed through 1924. No work has been done since 1924. The project from the mouth of the Brazos River to Old Washington, a distance of 247.5 miles, would require complete reconstruction.

CEDAR BAYOU, HARRIS, TEX.

Authorization.—River and Harbor Act of September 19, 1980, as amended by the River and Harbor Act of July 3, 1930, Public Law 520, 71st Congress.

Description.—The project would have consisted of constructing a channel 10 feet deep and 100 feet wide between the Houston Ship Channel and a point 11 miles above the mouth of Cedar Bayou. The project also included the jetties at the mouth of the Bayou.

CHANNEL TO PORT BOLIVAR, TEX.

Authorization.—River and Harbor Act of March 2, 1907, Public Law 168, 59th Congress, as amended by the River and Harbor Act of June 25, 1910, Public Law 264, 61st Congress, and the River and Habor Act of March 1, 1919.

Description.—The Channel to Port Bolivar is located on the upper Texas coast at the southwestern tip of Bolivar Peninsula, in Galveston County. The project authorization provided for a channel from deep water in Bolivar Roads, 30 feet deep and 200 feet wide, to a turning basin, 30 feet deep, 1,600 feet long, and an average of about 750 feet wide. The project is presently being maintained 14 feet deep and 200 feet wide from deep water in the turning basin area to the harbor line, a distance of approximately 900 feet to accommodate the only user of the present channel—the toll-free Galveston-Port Bolivar ferry service operated by the Texas Department of Highways and Public Transportation. The 750-foot by 1,600-foot by 30-foot deep turning basin was never constructed and is now classified by the Corps as inactive.

DUCK CREEK CHANNEL IMPROVEMENTS, TEXAS

Authorization.—Flood Control Act of 1965.

Description.—The project would have consisted of channel improvement along the main channel of Duck Creek including the realignment and enlargement of 6.6 miles of channel, modification of 10 bridges, and acquisition of rights-of-way for construction and disposal of excess excavated material.

GULF INTRACOASTAL WATERWAY CHANNEL TO HARLINGEN, TEX.

Authorization.—River and Harbor Act of March 2, 1945, Public Law 14, 79th Congress.

Description.—The Channel to Harlingen is located on the lower Texas coast in Willacy and Cameron Counties, extending from the main channel of the Gulf Intracoastal Waterway (GIWW) at mile 653 to the Arroyo Colorado and thence upstream to the vicinity of Harlingen. The project plan provided for a channel 12 feet deep by 125 feet wide from the GIWW upstream in the Arroyo Colorado to Harlingen, Texas and included a 12-foot by 400-foot by 500-foot turning basin betwen Rio Hondo and Harlingen. The authorized channel is about 31 miles long. The channel to Harlingen to mile 25.8 has been completed. The authorized channel (mile 25.8 to mile 31.0) above the turning basin has not been completed and is inactive.

GULF INTRACOASTAL WATERWAY—CHOCOLATE BAYOU, TEX.

Authorization.—River and Harbor Act of 1965.

Description.—The project components being deauthorized include channel enlargement to 12-by-125 feet from the Gulf Intracoastal Waterway to mile 8.2 and construction of a saltwater barrier at mile 16.9; channel enlargement to 9-by-100 feet from channel mile 8.2 to mile 13.2 and construction of a 600-foot by 600-foot turning basin to a depth of 9 feet at mile 13.2.

GULF INTRACOASTAL WATERWAY HARBOR OF REFUGE AT SEADRIFT, TEX.

Authorization.—River and Harbor Act of 1954.

Description.—The project plan provided for a harbor 9 feet deep with bottom dimensions of 200 feet by 1,000 feet and a connecting channel to the existing Seadrift Turning Basin. The harbor of refuge would have been surrounded by a protective levee with a top elevation of 20 feet NGVD constructed from materials excavated from the harbor.

HOUSTON SHIP CHANNEL, GREENS BAYOU, TEX.

Authorization.—River and Harbor Act of 1965.

Description.—The project plan provided an improved navigation channel in the lower 2.7 miles of Greens Bayou, a tributary of the Houston Ship Channel. The lowest 0.3 mile of the authorized project channel is 36 feet deep and 175 feet wide. However, the Port of Houston maintains this reach of the project to a depth of 40 feet. The next 1.3-mile increment of the project channel is 15 feet deep and 100 feet wide. The last 1.1-mile increment of the project channel, which has not been dredged, is authorized to a 12-foot depth and a 100-foot width.

CHANNEL RELOCATION IN MATAGORDA BAY, GULF INTRACOASTAL WATERWAY, TEX.

Authorization.—River and Harbor Act of June 25, 1910, Public Law 264, 61st Congress, as amended by the River and Harbor Act of 1925, Public Law 585, 68th Congress, the River and Harbor Act of January 21, 1927, Public Law 560, 69th Congress, the River and Harbor Act of July 23, 1942, Public Law 675, 67th Congress, and the River and Harbor Act of 1962.

Description.—The authorized projects would have included relocating a segment of the Intracoastal Waterway in Matagorda Bay between miles 454.3 and 471.3. The relocation would have provided a channel 12-by-125 feet on the previously abandoned route through Matagorda Bay.

The River and Harbor Act of March 3, 1925 and January 21, 1927 authorized a project for the Louisiana-Texas Intracoastal Waterway in accordance with the recommendations contained in House Document No. 238, 68th Congress, 1st Sesion. The project plan provided for a channel 9 feet deep and 100 feet wide from the Mississippi River at or near New Orleans, Louisiana, to Corpus Christi, Texas. These Acts changed the location of the Intracoastal Waterway to follow the northern shoreline of Matagorda Bay. The River and Harbor Act of July 23, 1942 adopted a modification in accordance with the recommendations of House Document No. 230, 76th Congress, 1st Session, to provide for enlargement of the Gulf section of the Intracoastal Waterway from the Mississippi River to Corpus Christi, Texas, and its extension to the vicinity of the Mexican border so as to provide, throughout the entire length of the Waterway, a channel 12 feet deep with a minimum width of 125 feet.

LAKE BROWNWOOD, TEX.

Authorization.—Flood Control Act of 1968.

Description.—The modification would have consisted of an "add-on" or composite earth fill embankment, revisions to the existing outlet works, and repairs and revisions to the spillway. The total controlled storage would have been 118,900 acre-feet, including 85,900 acre-feet for water supply and 33,000 acre-feet for sediment reserve. Local interests have already constructed the modification without Federal assistance.

LAKE FORK LAKE—LAKE FORK CREEK, TEX.

Authorization.—Flood Control Act of 1970.

Description.—The plan of improvement provided for an earth and rock fill dam with a maximum height of 106.5 feet above the streambed and a total length of 16,130 feet, including an uncontrolled broadcrested-type concrete spillway 100 feet long. The outlet works would have consisted of 12-foot diameter conduit controlled by two slide gates. The reservoir would have had a total controlled storage capacity of 1,113,000 acre-feet, including 472,600 for flood control, 621,000 for water supply and 18,900 for sediment reserve. The project was one of three short-range multiple-purpose reservoirs recommended for authorization in a plan of development for the Sabine River Basin, to provide measures for flood control, water supply, recreation, and fish and wildlife conservation.

MILL CREEK, BRAZOS RIVER, AUSTIN COUNTY, TEX.

Authorization.—River and Harbor Act of July 24, 1946, Public Law 525, 79th Congress.

Description.—The project would have included clearing and snagging in the Mill Creek channel from its mouth to mile 7.3; channel enlargement and rectification between miles 7.3 and 14.04 to provide a bottom width of 70 feet, side slopes of 1 vertical on 2 horizontal, and a capacity of 10,000 cubic feet per second (3-year frequency); pier protection for the Santa Fe Railway bridge and the State Highway 36 bridge; and riprap protection for the 220-foot channel reach between the two bridges.

NAVASOTA LAKE, TEX.

Authorization.—Flood Control Act of 1968.

Description.—The plan of improvement provided for a concrete and earthfill dam about 16,100 feet long and would have included a 424-foot gate-controlled concrete spillway. The total storage would have been 1,935,600 acre-feet, including 550,700 acre-feet for flood control, 1,315,400 acre-feet for water supply, and 69,500 acre-feet for sediment reserve. The project included improvement of the existing downstream channel for flood release purposes.

NAVIDAD AND LAVACA RIVERS, JACKSON AND LAVACA COUNTIES, TEX.

Authorization.—River and Harbor Act of March 2, 1945, Public Law 14, 79th Congress.

Description.—The authorized project would have provided for channel clearing, straightening, and enlargement for flood control upstream on the Lavaca and Navidad Rivers and tributaries; and improvement of a 2.7-mile reach of the Lavaca River channel at Hallettsville to provide a bottom width of 90 feet, side slopes of 1 vertical on 3 horizontal, and a capacity of 44,000 cubic feet per second.

PECAN BAYOU LAKE, TEX.

Authorization.—Flood Control Act of 1968.

Description.—The lake would have been formed by an earth dam 14,700 feet long, including an outlet works through the embankment and an excavated uncontrolled saddle spillway. The total controlled storage would have been 206,300 acre-feet, including 102,700 acre-feet for flood control, 93,500 acre-feet for water supply and 10,100 acre-feet for sediment reserve.

PEYTON CREEK, MATAGORDA COUNTY, TEX.

Authorization.—Section 201 of the Flood Control Act of 1965 and approved by resolutions of the Committee on Public Works of the House of Representatives and the Committee on Public Works of the Senate, adopted October 12, 1972.

Description.—The project would have included enlargement and rectification of 13.40 miles of Peyton Creek, 9.13 miles of Bucks Bayou, 7.73 miles of Cottonwood Creek, 7.75 miles of Live Oak Slough, and 2 miles of Dry Creek; construction of a plug in Cottonwood Creek above Bay City; and construction of a diversion dam 2.10 miles long from Cottonwood Creek to Bucks Bayou. Also to be provided was construction of a salt water barrier in lower reaches of Peyton Creek and major drainage outlets to serve agricultural lands in Peyton Creek Watershed.

PLAINVIEW, TEX.

Authorization.—Section 201 of the Flood Control Act of 1965 and approved by resolutions of the Committee on Public Works of the House of Representatives, adopted December 15, 1970, and the Committee on Public Works of the Senate, adopted December 17, 1970.

Description.—The plan of improvement provided for construction of 39,200 feet of improved channel along Running Water Draw; excavation of 39,500 feet of channel in the Playa-Lakes area to form the East Diversion Channel; a diversion dike to facilitate discharge of flood flows from the Playa-Lakes area; and relocation or alteration of twenty-two highway or street bridges, four railroad bridges, two streets and existing utilities and pipelines.

ROANOKE LAKE, TEX.

Authorization.—River and Harbor Act of 1965.

Description.—Roanoke Lake would have been formed by an earth dam about 15,200 feet long, including a 328-foot-long controlled concrete spillway. The total controlled storage would have been 249,900 acre-feet, including 223,700 acre-feet for flood control and 26,200 acre-feet for sediment reserve.

SABINE NECHES WATERWAY CHANNEL TO ECHO, TEX.

Authorization.—River and Harbor Act of 1962.

Description.—The Channel to Echo is located on the upper Texas coast, north of the City of Orange, in Orange County. The project plan provided for a channel in the Sabine River, from Orange to Echo, 12 feet deep and 125 feet wide.

The Channel to Echo is an element of the Sabine Neches Waterway authorized to improve the outer bar channel to 42 and 40 feet for all inland channels to Port Arthur and Beaumont; improve channels to a width of 500 feet in Port Arthur Canal and 400 feet in Neches River Channel to Beaumont with three turning points in the Neches River; construct a 12-by-125-foot channel in Sabine River to Echo; and replace a bridge at Port Arthur, Texas. The basic project is complete with the exception of the channel to Echo.

SABINE RIVER, ECHO TO MORGAN BLUFF, TEX.

Authorization.—Flood Control Act of 1970.

Description.—The channel from Echo to Morgan Bluff was to be located on the upper Texas coast, north of the City of Orange, in Orange County. The project authorization would have provided for channel in the Sabine River, 12 feet deep and 125 feet wide, from the authorized channel to Echo, upstream to and including a 600-foot square turning basin at Morgan Bluff, Texas.

WEBER RIVER AND TRIBUTARIES, MORGAN COUNTY, UTAH

Authorization.—Section 206 of the River and Harbor Act of 1968.

Description.—The project would have provided low levees, channel improvement, clearing and snagging, and removal of diversion dams on Weber River and tributaries in the vicinity of Ogden, Utah. The project was originally authorized by Public Law 85-500 and deauthorized in 1967. In 1968, Public Law 90-483 reauthorized the project with a specific deauthorization date of April 16, 1972 unless local interests provided the necessary assurances. Morgan County did not provide assurances, and that portion of the project was eligible for deauthorization at that time. The Weber County and Davis County portions remain authorized but not constructed.

BENNINGTON, VT.

Authorization.—Flood Control Act of June 22, 1936, Public Law 738, 74th Congress.

Description.—This project is separated into two parts. The active part includes 3,000 feet of levee, 210 feet of impervious levee, 166 feet of reinforced concrete flood walls, 4 drainage structures, and 6.4 acre-feet of ponding area. The inactive part involves 8,500 feet of concrete crib-wall. The active portion of this project has been completed and is not being deauthorized.

OTTER CREEK, ADDISON COUNTY, VT.

Authorization.—River and Harbor Act of June 10, 1872.

Description.—The project would have included dredging a channel 8 feet deep, 100 feet wide from Lake Champlain to Vergens.

RUTLAND OTTER CREEK, VT.

Authorization.—Flood Control Act of June 22, 1936, Public Law 738, 74th Congress, as amended by the Flood Control Act of July 31, 1947, Public Law 296, 80th Congress.

Description.—The project would have included the construction of walls, levees, a flume, a debris basin, ponding areas and pump stations; modifications to bridges, roads and utilities; construction of a new bridge; and clearing and snagging work for protection from overflow of both East Creek and Otter Creek.

THIMBLE SHOAL CHANNEL, VA.

Authorization.—River Harbor Act of 1954.

Description.—The 1954 authorization provided for side channels on both sides of the 1,000-foot channel, each side channel to be 32 feet deep, and 450 feet wide. The existing project provides for an entrance channel into the Ports of Hampton Roads, 1,000 feet wide, 45 feet deep and approximately 12 miles long.

NEABASCO CREEK, VA.

Authorization.—River and Harbor Act of March 3, 1881.

Description.—A navigation channel from the Potomac River to Atkinson's Upper Landing and Willis Wharf is being deauthorized.

MOORE'S FERRY LAKE, VA. AND N.C.

Authorization.—Flood Control Act of June 28, 1938, Public Law 761, 75th Congress.

Description.—The project site would have been located on New River, Virginia, three miles west of Galax, Virginia, in Grayson

County, and 214 miles above the confluence of New River with Kanawha River, West Virginia. The project was to consist of a concrete gravity dam 1,470 feet long, with a maximum height 230 feet above the streambed. The project was to control the runoff from a drainage area of 1,130 square miles. Project purposes included flood control, water quality control, recreation, fish and wildlife enhancement, and hydroelectric power generation.

PAMUNKEY RIVER, HANOVER AND KING COUNTIES, VA.

Authorization.—The River and Harbor Act of March 2, 1945, Public Law 14, 79th Congress.

Description.—The River and Harbor Act of June 14, 1880 provided for dredging and snagging of a channel 5 to 6 feet deep and 40 to 60 feet wide to Hanovertown, Virginia; a channel 7 feet deep and 100 feet wide on lower bars with dikes at 2 bars; and a channel 7 feet deep and 100 feet wide to Bassett Ferry. All of this work was completed in 1913. The project modification being deauthorized provided for a channel 5 feet deep and 50 feet wide between Bassett Ferry and Manquin Bridge.

CHRISTIANSTED HARBOR-ST. CROIX, VIRGIN ISLANDS

Authorization.—River and Harbor Act of 1950.

Description.—This project included an approach channel 25 feet deep and 300 feet wide from the Caribbean Sea and included a turning basin of the same depth about 600 feet wide and 900 feet long. An alternative channel 16 feet deep and 300 feet wide, and a turning basin 16 feet deep and 600 feet wide have been completed.

ST. THOMAS HARBOR, VIRGIN ISLANDS

Authorization.—River and Harbor Act of August 26, 1937, Public Law 392, 75th Congress.

Description.—The authorized project was to include construction of an entrance channel 36 feet deep and 600 feet wide; removal of Scorpion Rock to a 36-foot depth; an anchorage area 33 feet deep; and a breakwater 700 feet long between Rupert Rock and the mainland.

WAKE ISLAND HARBOR, WAKE ISLAND

Authorization.—River and Harbor Act of August 26, 1937, Public Law 392, 75th Congress.

Description.—The authorized harbor improvement was to include a channel approximately 1,000 feet long, 200 feet wide and 18 feet deep and a basin approximately 1,000 feet square and 18 feet deep.

ENTIAT RIVER, CHELAN COUNTY, WASH.

Authorization.—Flood Control Act of 1950.

Description.—House Document 531 described the needed flood control improvements as follows: "Damage from the 1948 flood was also severe on the Entiat River, from Ardenvoir to the mouth. Further investigations will be necessary to determine a solution. It is believed that approximately 2 miles of channel clearing and rectification, together with about 6,000 feet of heavy rock riprap bank protection, are economically justifiable."

LOWER WALLA WALLA RIVER, WASH.

Authorization.—Flood Control Act of 1950.

Description.—The project would have included channel realignment and enlargement and revetted levees at intermittent locations along the lower 38 miles of the Lower Walla Walla River.

METHOW RIVER, OKANOGAN COUNTY, WASH.

Authorization.—Flood Control Act of 1950.

Description.—House Document 531 described the needed flood control improvement "over numerous and widely scattered areas along the Methow River in the 60-mile reach from Early Winters Bridge in the upper valley to the mouth at Pateros, Washington. Actual project sites and features were not specified. In general, the authorization referred to extensive channel clearing and rectification, bank protection of critical points, and a program of continuous maintenance. Protection of selected areas where property values and consequent damages were concentrated was believed to be economically justified."

OKANOGAN RIVER, OKANOGAN, WASH.

Authorization.—Flood Control Act of 1950.

Description.—House Document 531 described the needed flood control improvements as follows: "Local protective works would alleviate flood damage to a considerable extent. Such work would consist of levees at the towns of Oroville, Tonasket, Omak, Okanogan, and Mallot; rock riprap bank protection; channel clearing and rectification."

Levees for Omak and Oroville have been constructed by the Corps under the small project program. The Similkameen Dam is being evaluated currently by a Feasibility Study.

QUILLAYUTE RIVER, CLALLAN COUNTY, WASH.

Authorization.—River and Harbor Act of July 3, 1930, Public Law 520, 71st Congress.

Description.—This project was to include construction of groins on the westerly side of the Quillayute River, extending from an existing rock dike and connecting a sand spit with James Island at the harbor entrance. The groins were originally viewed as contingency features at the time of authorization. They were provided for in the event that they would be necessary to properly direct and confine the existing navigation channel. They were never constructed. The jetty and dike features were constructed in 1931, and the jetty was raised in 1960.

SEATTLE HARBOR, KING COUNTY, WASH.

Authorization.—River and Harbor Act of July 3, 1930, Public Law 520, 71st Congress.

Description.—The project was to include a settling basin located at the upper end of the existing Duwamish waterway navigation project about 1.4 miles above the 14th Avenue So. Bridge. The authorization capacity of the settling basin was to be 100,000 cubic yards. The settling basin was intended as a means of intercepting river sediments above navigation channels to reduce downstream in-channel maintenance.

SPOKANE RIVER, SPOKANE, WASH.

Authorization.—Flood Control Act of June 28, 1938, Public Law 761, 75th Congress.

Description.—The project plan provides for about a mile of levees, bulkheads and floodwalls on the right bank of the Spokane River near downtown Spokane. The levees for Spokane are seaprable from those in Coeur d'Alene and St. Maries, which were completed in 1941 and 1942, respectively. The project was recommended for abandonment in House Document 531, 81st Congress, dated October 1, 1948, but has not been deauthorized. Also, an urban study for the Metropolitan Spokane area completed in 1980 found no current need for the project.

YAKIMA RIVER AT ELLENSBURG, WASH.

Authorization.—Flood Control Act of 1950.

Description.—House Document 531 described the need for flood control improvements "to protect some areas in the Yakima River Basin even though additional storage for flood control may be provided in this basin. Preliminary studies indicated that levee projects are needed near the mouth of Teanaway River; in the vicinity of Ellensubry; in the Selah area; in the Yakima-Moxee, and the Wapato-Toppenish area. The proposed project at Ellensburg comprises construction of a new levee system for a distance of about 8 miles along the left bank of Yakima River, west of the town of Ellensburg."

PALOUSE RIVER, WHITMAN COUNTY, WASH.

Authorization.—Flood Control Act of 1950.

Description.—The project was to provide flood protection for both urban and rural areas on the Palouse River and tributaries by means of channel improvements.

PULLMAN PALOUSE RIVER, WASH.

Authorization.—Flood Control Act of 1944.

Description.—The project was to provide flood protection for Pullman, Washington, by the improvement and concrete lining of the channel of the South Fork of the Palouse River and the lower reaches of Missouri Flat Creek, and by the construction of levees and revetments.

STILLAQUAMISH RIVER, WASH.

Authorization.—River and Harbor Act of March 2, 1945, Public Law 14, 79th Congress.

Description.—The project plan envisioned construction of a navigation channel 75 feet wide, extending from Stanwood, Washington through the South Pass of the Stillaquamish River to Port Susan.

MOUNDSVILLE, MARSHALL COUNTY, LEVEES, W. VA.

Authorization.—Flood Control Act of June 28, 1938, Public Law 761, 75th Congress.

Description.—The project was to consist of constructing approximately 3,100 feet of earth levee and approximately 3,300 feet of concrete wall with flood gates and the installation of pumps. The flood damage reduction project at this location was re-examined by the Pittsburgh District during the Metropolitan Wheeling Urban Study, but it was found not to be economically feasible.

PANTHER CREEK LAKE, W. VA.

Authorization.—Flood Control Act of 1965.

Description.—The authorized project was to be located on Panther Creek 6.1 miles above its mouth, in McDowell County, West Virginia. Panther Creek is in the Tug Fork drainage basin.

The project plan provided for construction of a rolled-rock dam, with a maximum height of 200 feet, a crest length of 900 feet, and an uncontrolled spillway with a bottom width of 150 feet. The outlet works were to consist of a 7.5-foot diameter horseshoe tunnel located in the right abutment of the dam, with a 220-foot-high, dry well-type gated control structure on the upstream end. The project is presently classified as inactive by the Corps.

PROCTOR, WETZEL COUNTY, W. VA.

Authorization.—Flood Control Act of June 28, 1938, Public Law 761, 75th Congress.

Description.—The project was to consist of the construction of 2,340 feet of earth levee with flood gates, the installation of pumps, and the relocation of highways. The flood damage reduction project at this location was re-examined by the Pittsburgh District during the Metropolitan Wheeling Urban Study, but it was found not to be economically feasible.

RAVENSWOOD, W. VA.

Authorization.—Flood Control Act of June 28, 1938, Public Law 761, 75th Congress.

Description.—The project was to be located on the left bank of the Ohio River in Jackson County, West Virginia, 221 miles below Pittsburgh. The project was to consist of an earth levee, having a crown width of eight feet, a 700-foot length, an average height of 12.8 feet, and 3-on-1 side slopes. It also was to include a concrete wall, 1,385 feet in length, with an average height of 23.3 feet and a 3-foot freeboard over the highest flood of record, which occurred in 1913.

ROWLESBURG LAKE, W. VA.

Authorization.—Flood Control Act of 1965.

Description.—The project was to consist of a concrete gravity dam with a controlled center spillway 1,695 feet long and 271 feet high. The lake would have had a total storage capacity of 831,700 acre-feet.

WARWOOD, OHIO COUNTY WALL AND DRAINAGE, WEST VIRGINIA

Authorization.—Flood Control Act of June 28, 1938, Public Law 761, 75th Congress.

Description.—The project was to consist of approximately 3,300 feet of concrete wall with flood gates and a pump. The flood damage reduction project at this location was re-examined by the Pittsburgh District during the Metropolitan Wheeling Urban Study, but the project was found not to be economically feasible.

NORTH WHEELING, OHIO COUNTY, W. VA.

Authorization.—Flood Control Act of June 28, 1938, Public Law 761, 75th Congress.

Description.—The project was to consist of constructing approximately 6,900 feet of concrete wall with flood gates and installing pumps and internal drainage facilities. The flood damage reduction project at this location was re-examined by the Pittsburgh District during the Metropolitan Wheeling Urban Study, but the project was found not to be economically feasible.

WHEELING, OHIO COUNTY, LEVEES, WALLS AND PUMPING PLANT, WEST VIRGINIA

Authorization.—Flood Control Act of June 28, 1938, Public Law 761, 75th Congress.

Description.—The project was to consist of about 24,500 feet of dike wall along the Ohio River; railroad relocation along practically the entire length of the project; installation of about 350 feet of pressure conduit along Wheeling Creek; and construction of about 1,100 feet of cut-off dike, about 3,800 feet of flood wall along Wheeling Creek, 10 gate closures, 4 pump stations and internal drainage facilities. The flood damage reduction project at this location was re-examined by the Pittsburgh District during the Metropolitan Wheeling Urban Study, but it was found not to be economically feasible.

WHEELING ISLAND, OHIO COUNTY, W. VA.

Authorization.—Flood Control Act of June 28, 1938, Public Law 761, 75th Congress.

Description.—The project was to consist of constructing approximately 4,000 feet of earth levee and approximately 4,500 feet of concrete wall with flood gates and installation of pumps and internal drainage facilities. The flood damage reduction project at this location was re-examined by the Pittsburgh District during the Metropolitan Wheeling Urban Study, but the project was found not to be economically feasible.

BIRCH LAKE, W. VA.

Authorization.—Flood Control Act of June 28, 1938, Public Law 761, 75th Congress.

Description.—The dam was to be located about one mile above the mouth of Birch River, a tributary of Elk River, and 140 miles above the mouth of the Kanawha River, Braxton County, West Virginia. The authorized project was to consist of an earthfill dam approximately 143 feet high and 690 feet long. An uncontrolled spillway, 150 feet wide, was to be located in the left abutment. The outlet works were to consist of a conduit through the dam discharging through two sluice gates into a stilling basin. The dam was to control a drainage area of 142 square miles.

WOODLANDS, MARSHALL COUNTY, W. VA.

Authorization.—Flood Control act of June 28, 1938, Public Law 761, 75th Congress.

Description.—The project was to consist of the construction of 1,860 feet of earth levee, flood gates, installation of pumps and the relocation of highways. The flood damage reduction project at this location was re-examined by the Pittsburgh District during the Metropolitan Wheeling Urban Study, but it was found not to be economically feasible.

HUDSON SMALL BOAT HARBOR, WISCONSIN

Authorization.—Flood Control Act of 1950.

Description.—The project plan provided for a small boat harbor on the St. Croix River at Hudson, Wisconsin. The plan of improvement was to consist of dredging a harbor basin about 500 by 550 feet with a five-foot depth in a bay between Sawmill Point and Interstate Highway 94, and a protection dike extending about 700 feet downstream from Sawmill Point.

CASSVILLE SMALL BOAT HARBOR, GRANT COUNTY, WIS.

Authorization.—River and Harbor Act of 1962.

Description.—The project plan provided for construction of a recreational small boat harbor to accommodate about 120 small craft. The project was to consist of a breakwater, entrance channel, and maneuvering channel.

BUFFALO, JOHNSON COUNTY, DIVERSION CHANNEL, WYOMING

Authorization.—Flood Control Act of 1950.

Description.—The project plan provided for a diversion dam across Clear Creek valley, approximately one mile upstream of Buffalo, and a 3,500-foot diversion channel from Clear Creek to an existing drainage channel.

SECTION 1002

Subsection (a) deauthorizes the navigation project at Eastport Harbor, Maine, authorized by section 101 of the River and Harbor Act of 1960.

Subsection (b) requires the Secretary to, as soon as practicable, transfer without consideration to the City of Eastport, Maine, any facilities and improvements constructed by the United States as part of the Eastport Harbor project. Interests in land underlying the project, title to which is held by the State of Maine, are not required to be conveyed by this section.

SECTION 1003

Subsection (a) deauthorizes the Kalihi Channel portion of the navigation improvement project for Honolulu Harbor, Hawaii, authorized by Section 101 of the River and Harbor Act of 1954.

Subsection (b) grants the consent of Congress to the State of Hawaii to construct, operate, and maintain a fixed-span bridge in and over Kalihi Channel.

SECTION 1004

Subsection (a) deauthorizes the Onaga Lake flood control project, Vermillion Creek, Kansas, authorized by the Flood Control Act of 1962.

Subsection (b) directs the Secretary to expedite his current study, pursuant to section 216 of the Flood Control Act of 1970, with respect to the addition of water supply storage at Tuttle Creek Lake, Kansas.

SECTION 1005

Subsection (a) deauthorizes the William L. Springer Lake flood control project.

Subsection (b) provides that, before any lands acquired by the United States for the William L. Springer project are sold or otherwise disposed of or used for any purpose other than to carry out the project, those lands must first be made available to the City of Decatur, Illinois, for purchase at the price paid by the United States.

TITLE XI

GENERAL PROVISIONS

SECTION 1101

This section defines the objectives for which a water resources project carried out by the Secretary is to be planned and for which the benefits and costs, both quantifiable and unquantifiable, shall be included in the evaluation of the project. It provides that the objectives of enhancing regional economic development, the quality of the total environment (including its protection and improvement), the well-being and quality of life of the people of the United States, the prevention of loss of life, and national economic development, shall be the objectives to be included in water resources projects carried out by the Secretary. It also provides that the benefits and costs attributable to these objectives, both quantifiable and nonquantifiable, shall be included in the evaluation of the benefits and costs of these projects.

Some benefits are easily quantifiable in monetary terms. These include flood damages prevented, transportation savings associated with improved navigation facilities, production of hydroelectric power, and provision of municipal and industrial water supply at a cost which is less than available alternatives. Other benefits cannot be measured in this manner. Examples include mitigation and enhancement of fish and wildlife habitat, environmental protection resulting from project features designed to reduce or eliminate adverse effects on the environment, and enhancement of the security of life and health by reducing risk of flood, drought, or other disaster and by minimizing hazards to health and safety.

Benefit-cost analysis for water resources projects had its origin in the policy expressed in the 1936 Flood Control Act that Federal participation in the provision of flood protection should be undertaken "if the benefits to whomsoever they may accrue are in excess of the estimated costs, and if the lives and social security of people are otherwise adversely affected."

Interpretation of this statute has resulted in development of various procedures to evaluate the benefits and costs of proposed projects. These procedures centered around economic analysis and were first published as "Proposed Practices for Economic Analysis of River Basin Projects" in May 1950 and revised in May 1958. Budget Bureau Circular No. A-47 was issued on December 31, 1952, informing the agencies of considerations which would guide the Bureau of the Budget in its evaluations of projects and requiring uniform data that would permit comparisons between projects.

In October of 1961, the President requested the Secretaries of Interior, Agriculture, Army, and Health, Education, and Welfare to review existing evaluation standards and to recommend improvements. Their report, "Policies, Standards, and Procedures in the Formulation, Evaluation, and Review of Plans for Use and Development of Water and Related Land Resources," was approved by the President on May 15, 1962, and published as Senate Document No. 97, 87th Congress, 2d Session.

This document remained applicable until the development of principles and standards by the Water Resources Council pursuant to the provisions of the Water Resources Planning Act of 1965.

The Act established the Water Resources Council, composed of the heads of the various Federal agencies involved in water resources development. One of the specific duties assigned to the Council was the establishment, with the approval of the President, of Principles, Standards and Procedures for the formulation and evaluation of Federal water resources projects.

The Council appointed a task force to study new principles and standards. The task force report was completed in the fall of 1971. These proposed principles and standards in their earlier stages of development provided for the consideration of the so-called "four accounts" in water resources planning—national economic development, regional economic development, the quality of the total environment and the well-being of the people. This led our Committee to include Section 209 in the Flood Control Act of 1970, which expressed the intent of Congress that the four accounts should be the objectives to be included in Federally-financed water resources projects. The four accounts developed by the Council were not accepted by the Office of Management and Budget, however.

The Principles and Standards of the Water Resources Council have been repealed by the present Administration, and new Principles and Guidelines have been promulgated in final form by the Office of Water Policy of the Department of the Interior. Perhaps the most significant change is the emphasis on national economic development as the objective and source of benefits to be considered in project evaluation and formulation as opposed to the equal consideration given to environmental quality in the earlier principles and standards.

The Committee continues to feel strongly that national economic development, while important, should not be the sole or primary objective for which a water resources project is planned and should not be the sole, or in some cases the primary source, of benefits attributable to that project. Water resources projects serve a variety of purposes and national, regional and local needs. These include navigation, flood control, hydroelectric power production, municipal and industrial water supply, recreation, fish and wildlife enhancement and preservation, preservation and enhancement of environmental values, and enhancing the quality of life of all Americans. Existing laws mandate the consideration of a large number of factors in the planning of a water resources project. These laws include the Fish and Wildlife Coordination Act, the Federal Water Project Recreation Act, the National Environmental Policy Act and the Federal Water Pollution Control Act, to name but a few. Under these circumstances, projects are required to be planned and implemented with a view to serving many purposes for which economic benefits cannot be quantified. However, while the costs associated with serving these purposes are easily quantifiable in economic terms, the benefits may not be. In the benefit-cost analysis, the result is that all quantifiable economic costs of a project are counted, but many benefits—such as those relating to environmental, social and quality of life issues—are nonquantifiable and are not considered to constitute additions to national economic development in a monetary sense.

Because benefits of water resources projects substantially transcend additions to national economic development, the Committee feels it important and essential that all these benefits be evaluated and described in project report recommendations. It is most important that, when water resources projects are planned, all relevant benefits, impacts, and effects are considered. The other objectives enumerated in Section 1101 are equally important. Section 1101 requires that all of these factors are to be fully and equally considered in water resources planning. This will result in better projects, a better environment, and a better quality of life for the people of the United States.

SECTION 1102

This section defines the requirements for a feasibility report, which forms the basis for authorization of a water resources project, and the Federal and non-Federal responsibilities in the conducting of reconnaissance studies and feasibility reports.

Subsection (a) provides that in the case of any water resources study authorized to be undertaken by the Secretary, the Secretary shall prepare a feasibility report. The feasibility report is to describe, with reasonable certainty, the environmental benefits and detriments, the costs and benefits attributable to each of the objectives set forth in Section 1101, the engineering features (including hydrologic and geologic information), the public acceptability, and the purposes, scope and scale of the recommended plan. The report is also to include the views of other Federal agencies and non-Federal agencies with regard to the recommended plan, a description of a nonstructural alternative to the recommended plan when that plan does not have significant nonstructural features, and a description of the Federal and non-Federal participation in the plan. It shall also demonstrate that states, other non-Federal interests, and Federal agencies have been consulted in its development. The requirements of subsection (a) do not apply to any study with respect to which a report has been submitted to Congress before the date of enactment of this Act, any study for a project, which project is authorized in this Act, and any study for a project conducted under the Corps of Engineers' small project authorities. The types of projects planned and constructed under the small project authorities do not require the same detail which is required for larger projects. The smaller projects, of course, are still subject to all applicable requirements of law, such as the National Environmental Policy Act, the Fish and Wildlife Coordination Act and other similar Acts.

Subsection (b) provides that the Secretary, before preparing a feasibility report, shall first perform at full Federal expense, a reconnaissance survey of a potential water resources project for the purpose of defining water resources and environmental problems and needs to be addressed by the project and identifying potential solutions to these problems in sufficient detail to enable the Secretary to determine whether or not planning of the project should proceed to the preparation of a feasibility report. The survey is to include a preliminary analysis of the Federal interest, costs, benefits, and environmental impacts of such project and an estimate of the costs of preparing the feasibility report.

Subsection (c) requires non-Federal interests to contribute 25 percent of the cost of any feasibility report for any water resources study prepared by the Secretary. Not less than one-half of this non-Federal contribution is to be made by payments, and not more than one-half may be made by the provision of services, materials or supplies necessary to prepare the feasibility report. Any amount contributed by the non-Federal interests toward the cost of the study is to be credited toward the non-Federal share, if any, of the cost of construction of the project for which the report is prepared. This cost-sharing requirement does not apply to water resources studies, whether at the reconnaissance or feasibility stage, for which Federal funds have already been obligated before the date of enactment of the bill. It also does not apply to any water resources project for any navigation improvement to the inland waterway system, because the benefits of these projects are widespread and it is infeasible to identify any specific governmental entity as a beneficiary.

SECTION 1103

This section provides that in the evaluation by the Secretary of benefits and costs of a water resources project, the benefits attributable to measures included in the project for the purpose of environmental quality, including protection and improvement of the environment, mitigation of project-caused fish and wildlife losses, and fish and wildlife enhancement, shall be deemed to be at least equal to the costs of such measures.

This section is designed to work in conjunction with Section 1101. Section 1101 requires among other things that environmental preservation and improvement measures be considered as objectives in the planning of water resources projects and that the benefits of these measures, whether quantifiable or nonquantifiable, shall be considered in evaluating the benefits and costs of the project. Section 1103 provides that the benefits attributable to environmental measures shall be deemed at least equal to their costs. This provision is necessary because, while the economic costs of constructing and operating a project for the purpose of environmental quality are easily ascertained in monetary terms, the benefits attributable to this purpose are not. Section 1103 represents a determination by Congress that the costs of measures included in a project for the purpose of environmental quality are worth the economic cost. Without this provision, the economic costs associated with incorporation of these environmental measures will tend to depress and distort the benefit-cost ratio of a project. This, in turn, acts as a disincentive to include these environmental measures. Section 1103 will help ensure that there is no artificial hindrance to inclusion of these important environmental measures in a water resources project, so that projects may be constructed and operated to serve needed purposes while at the same time not contributing to a loss of environmental quality and, in fact, improving environmental quality in many instances.

SECTION 1104

This section establishes an Environmental Protection and Mitigation Fund in the amount of $35 million. Amounts in this fund are available for undertaking, in advance of construction of any water resources project which is authorized to be constructed, any measures which are authorized as a part of the project, including protection of environmental values through the acquisition of lands and interests therein, as may be necessary to ensure that project-induced losses to fish and wildlife production and habitat will be mitigated. The Secretary is to reimburse the fund for any amounts expended under this Section for a water resources project from the first appropriations made for construction, including planning and designing of the project.

It is not uncommon for a number of years to elapse between authorization of a project and initiation of construction of that project. During those years, lands and environmental elements which have been identified as being necessary to mitigate losses to fish and wildlife production and habitat and other environmental values, may become unavailable for a number of reasons, such as development in the area, clearing of woodlands and the like. This section provides a mechanism for preserving necessary lands and undertaking necessary measures to ensure that when the project is built, the necessary mitigation and environmental features will be able to be included.

SECTION 1105

Subsection (a) of this Section authorizes the Secretary, in consultation with appropriate Federal, State and local agencies, to study the water resources needs of river basins and regions of the United States. The Secretary is to report the results of this study to Congress not later than October 1, 1987.

Subsection (b) of Section 1105 provides that in carrying out these studies the Secretary shall consult with State, interstate, and local governmental entities.

These studies are intended to be general and broad-based in nature and to identify present and future water resources problems and needs in various areas of the country. Included are navigation, flood control, municipal and industrial water supply, hydroelectric power generation, water-related recreation, fish and wildlife, and environmental quality. The Secretary, in carrying out these studies, is directed to use and consider information provided by State and local governmental bodies. This study will provide the Congress with an assessment of the Nation's water resources needs and will enable it to determine the future course of the water resources program and appropriate policies to meet the needs of the Nation in the critical areas of water resorces conservation and development.

SECTION 1106

Subsection (a) of this Section authorizes the Secretary to establish and develop separate campgrounds for individuals 62 years of age or older at lakes or reservoirs under the jurisdiction of the Secretary where camping is permitted.

Subsection (b) authorizes the Secretary to prescribe regulations to control the use of and the access to any separate campground established and developed under subsection (a).

Subsection (c) authorizes to be appropriated such sums as may be necessary to carry out subsection (a).

Subsection (d) directs the Secretary to establish and develop a defined parcel of land at the Sam Rayburn Dam and Reservoir, Texas, as a separate campground for individuals 62 years of age or older.

Subsection (e) directs the Secretary to prescribe regulations to control the use of and the access to the separate campground established at the Sam Rayburn Reservoir.

Subsection (f) authorizes to be appropriated $600,000 to carry out the provisions of Subsection (d).

Subsection (g) describes the parcel of land to be established and developed as a separate campground at the Sam Rayburn Reservoir project.

SECTION 1107

Section 2 of Public Law 97-128 deauthorized the Meramec Dam project in Missouri. That law also authorized the Secretary to undertake such structural and nonstructural measures as he determines to be economically and engineeringly feasible to prevent flood damage to communities along the route of the Meramec River and its tributaries in St. Louis and Jefferson Counties, Missouri, at an estimated cost of $20 million. Section 1107 modifies this prior authority to include Franklin County, Missouri, and to increase the estimated cost to $100 million. The project is to be constructed at full Federal cost. The change is necessary to allow the Secretary to properly address regional flood problems in the area. The Committee wishes to point out that the addition of Franklin County and the increase in the authorization are not intended to include the construction of a dam on the Meramec River.

SECTION 1108

Section 111 of the River and Harbor Act of 1968 authorizes the Secretary to construct projects at full Federal expense for the mitigation of shore damages caused by Federal navigation projects, if the estimated cost of such a project is $1 million or less. Where the estimated cost exceeds $1 million, the Secretary must prepare and submit a report to Congress for authorization. Section 1108 amends Section 111 to make it clear that the mitigation projects may be either structural or nonstructural.

SECTION 1109

Subsection (a) of this Section authorizes the Secretary to restore to a safe condition dams owned by states or political subdivisions thereof which have been found to be hazardous as part of the Secretary's program of inspection of dams. The State or other public agency must agree to repay over a period not to exceed 50 years the costs of the restoration with interest and to maintain the dam in a safe condition. Also, the State in which the work is to be accomplished must have in existence a dam safety program for non-Federal dams which insures that these dams are built in accordance with sound engineering practice.

Subsection (b) provides that in any case in which any hazardous conditions are found during an inspection of a dam the Secretary, upon request by the owner of the dam, may perform detailed engineering studies to determine the structural integrity of the dam, subject to reimbursement of such expense.

Subsection (c) directs the Secretary in accordance with Subsection (a) to repair the spillway and undertake such other measures as the Secretary determines are necessary to restore the safety of the dam used to supply water to Schuyler County Public Water Supply District No. 1, Missouri.

Subsection (d) amends the Act authorizing the Secretary of the Army to undertake a national program of inspection of dams to provide that the Secretary shall annually update the inventory of dams required to be prepared under that Act and submit a report to the Congress of such update each year. This will provide current information on the hazards presented by dams throughout the Nation. This update shall include review of the dam inventory, review of the inspection results (including re-inspection if needed), and review of recommendations (including new recommendations if warranted).

SECTION 1110

Subsection (a) of this section amends Section 202(f) of the Water Resources Development Act of 1976 to extend the authorizations for appropriations for fiscal years beginning after September 30, 1983, for the general authority of the Secretary to remove drift and debris from navigable waters of the United States.

Subsection (b) of the section directs the Secretary to develop, implement and maintain a project under Section 202 of the 1976 Act for removal of drift and debris from Buffalo Harbor, New York, and removal of dilapidated structures from the adjacent shoreline. This will be a continuing program designed to improve navigation safety in the area of the Harbor.

SECTION 1111

This section declares Lake Pend Oreille, Idaho, to be not a navigable water of the United States for purposes of Section 10 of the Act entitled "An Act Making Appropriations for the Construction, Repair, and Preservation of Certain Public Works on Rivers and Harbors and for Other Purposes" approved March 3, 1899. Section 10 requires a permit from the Secretary for the erection of structures and other work in navigable waters of the United States. Lake Pend Oreille is technically a navigable water of the United States because it empties into a river; however, interstate navigation is not possible and Section 1111 will free the users of the Lake from the requirement of obtaining a Federal permit for the construction of wharves and docks for recreation.

SECTION 1112

This section increases the annual authorization for appropriations for removal of obnoxious aquatic plant growths from navigable waters from $5 million to $12 million.

SECTION 1113

This section authorizes the Secretary, upon request of a governor or a local government representative, to provide designs, plans, and specifications for carrying out projects for removing accumulated snags and other debris and clearing and straightening channels in navigable streams and their tributaries.

SECTION 1114

Subsection (a) of this section directs the Secretary to undertake a program to increase his capability to control river ice and harbor ice, and to assist communities in breaking up such ice that would otherwise be likely to cause or aggravate flood or other damage or severe streambank erosion.

Subsection (b) further authorizes the Secretary to provide technical assistance to units of local government to implement local plans to control or break up river ice and harbor ice. As part of this authority, the Secretary is authorized to purchase, utilize and, if requested by units of local government, loan any necessary ice control or ice breaking equipment to such units of local government.

Subsection (c) authorizes to be appropriated $5 million each fiscal year through fiscal year 1986 to implement the provisions of section 1114.

The authority provided in this section is not intended to include ice breaking activities by the Secretary for navigation purposes which are normally performed by the United States Coast Guard.

SECTION 1115

This section directs the Secretary of the Army and the Chief of Engineers to compile the laws of the United States relating to the improvement of rivers and harbors, flood control, beach erosion, and other water resources development enacted after November 8, 1966 and before January 1, 1984. Laws relating to water resources development have been compiled in a number of volumes throughout the years up to November 8, 1966. This compilation is a very useful source of relevant laws relating to all aspects of water resources development. The Committee accordingly directs the Secretary in Section 1115 to update the current compilation through January 1, 1984.

SECTION 1116

Although the National Historic Preservation Act of 1966 encourages and directs that historic properties under the jurisdiction of Federal agencies be maintained, preserved, rehabilitated, and restored, the Secretary has no statutory authorization to expend funds for these purposes. Section 1116 provides the authority to seek appropriations for the preservation and interpretation of historic properties at Corps of Engineers projects if such properties are include in the National Register of Historic Places.

SECTION 1117

This section continues the authority for the Secretary to contract with local governments for increased law enforcement assistance at Corps of Engineers reservoir projects and increases the amount to $10 million per year. Section 120 of the Water Resources Development Act of 1976 authorizes the Secretary to contract with states and their political subdivisions for the purpose of obtaining increased law enforcement services at water resources development projects under the jurisdiction of the Secretary to meet needs during peak visitation periods. Corps of Engineers lakes, as other recreational facilities, experience a seasonably significant level of criminal activity. A direct involvement of state and local law enforcement agencies is needed to control such activity. Section 1117 allows this program to continue so that law enforcement protection necessitated by the existence of a Federal project may continue.

SECTION 1118

This section directs the Secretary to convey to the Metropolitan Park District of Columbus and Franklin County, Ohio, all right, title and interest of the United States in an to all or any part of the 834 and 9/100 acres of land which were acquired for the Big Darby Lake Flood Control Project and which have been determined to be surplus property. The Secretary is to convey any such right, title and interest for consideration in an amount equal to the consideration paid by the Secretary for acquisition of the lands. The conveyance of land under this Section is to be made on the condition that the Park District administer the land for park purposes. If, at any time after such conveyance, the land is not so administered, all right, title and interest in the land shall revert to the United States which shall have immediate right of reentry thereon. The Big Darby Lake Flood Control Project has been deauthorized. The lands in question are surplus lands and the Park District wishes to acquire them in order to make them available for public park purposes in the area.

SECTION 1119

Section 16 of the Water Resources Development Act of 1974 modified the comprehensive plan for flood control and other purposes in the White River Basin to provide for a free highway bridge over the Norfork lake in the area where United States Highway 62 and Arkansas State Highway 101 were inundated as a result of the construction of the Norfork Dam and Lake.

When this project was constructed in the early 1940's during World War II, the State of Arkansas agreed to accept the payment of $1,342,000 from the United States as compensation for the inundation of State Highway 101, rather than insist that the United States construct a replacement bridge. This decision, made during the emergency wartime situation, turned out to be most disadvantageous to the State, because a serious need exists for a crossing of the lake to replace the inundated road. Section 16 provided for such a crossing, with the condition that the State repay to the United States the compensation received in 1943, with interest from that date.

Section 1119 removes the requirement for payment of interest, and in lieu thereof, increases the principal to $1,700,000.

SECTION 1120

This section directs the Secretary to maintain the navigation projects for the Delaware River, Philadelphia to the Sea, and Trenton to Philadelphia, to the authorized dimensions. The purpose of this provision is to ensure that these important projects be fully maintained so as to realize maximum benefits to navigation.

SECTION 1121

Subsection (a) of this section declares downstream recreation on the Gauley River to be an additional project purpose of the Summersville Project, West Virginia. During the fall flood control draw-down period for the project, the Secretary is to provide releases from the Summersville Dam for whitewater recreation in the 26-mile tailwater segment of the Gauley River commencing at the base of the Dam. Releases at times and levels suitable for such recreation shall commence on the first weekend after Labor Day of each year and continue during each weekend thereafter for approximately five weeks or until commencement of the traditional West Virginia Department of Natural Resources fishstocking program in the tailwaters area, whichever comes first.

Subsection (b) provides that to the extent feasible, whitewater recreation releases in addition to those referred to in Subsection (a) may be scheduled by the Secretary during spring and summer. These releases are not to be injurious to fish in the tailwaters of the Summersville Dam or to recreation, including fishing, in the Summersville Lake, as determined by the Secretary in consultation with the West Virginia Department of Natural Resources, and shall be compatible with other project purposes of the Summersville project. For purposes of scheduling releases under Subsection (b), the Secretary may provide for daily increments of water storage during weekdays (until Lake levels reach not more than 12 inches above summer pool level) to be released on weekends at times and levels suitable for whitewater recreation. These releases are to be scheduled only during periods after the Lake is filled to summer level and when inflow into the Lake during the previous week is adequate. A scheduled release may be cancelled at any time if the release would reduce Lake levels below the summer pool level.

Subsection (c) provides that the Secretary may temporarily suspend for such periods as may be necessary, or modify, any release required under Subsection (a) or scheduled under Subsection (b) when necessary for purposes of flood control or any other project purpose or for reasons of public health and safety.

Subsection (d) directs the Secretary to schedule the whitewater recreation releases under Subsection (b) as early as adequate hydrological data is available, and, to the maximum extent feasible, provide early advance public notice of all such releases to be provided under Subsection (a) and of all suspensions, modifications or cancellations of such releases.

SECTION 1122

Public Law 95-502, signed into law on October 21, 1978, authorized replacement of the existing Locks and Dam 26 at Alton, Illinois, with a new dam and a single 1,200-foot lock. That Act also imposed a tax on fuel used in inland waterway transportation, authorized the Secretaries of Commerce and Transportation to study the impacts of waterway user charges, and directed the Upper Mississippi River Basin Commission to prepare a comprehensive Master Plan for the management of the Upper Mississippi River System. The Commission completed that plan and transmitted it to Congress on January 1, 1982.

In the Act, Congress directed the Commission, in preparation of the Master Plan, to evaluate:

> the impacts of navigation and operation and maintenance on fish and wildlife, water quality, recreation and potential wilderness areas;
>
> the carrying capacity of the Upper Mississippi River System;
>
> the costs and benefits to the nation of expanding the System's capacity for navigation;

the effects of navigation expansion on railroads and on national transportation policy;

the economic need for a second lock at Locks and Dam 26 and ways to mitigate any damage that might be caused by a second lock;

the costs and benefits of disposal of dredged material outside the floodplain; and

the possibility of a computer information system to analyze effects of alternatives.

The report submitted to Congress in January 1982 contained the results of these studies and a series of recommendations that constitute the recommended Master Plan for the Upper Mississippi River Basin.

The Upper Mississippi River Basin System is a multi-purpose System with two Congressional mandates. The Upper Mississippi River System is a nationally significant ecosystem and a nationally significant commercial navigation system. As a result of separate Congressional actions, this System is managed for two specific purposes: commercial navigation and national wildlife refuges. Immediate actions are necessary to further define and to provide for the near-term needs of this multi-purpose river system. Projected commercial navigation growth beyond 1990 cannot be met by the system with presently authorized projects. The integrity of the existing system including fish, wildlife and terrestrial and aquatic habitats, cannot be properly maintained or enhanced under existing authorization and with current levels of funding. Also, currently available economic and environmental data are not conclusive enough to make sound management decisions for the period beyond 1990.

The recommended Master Plan incorporates a strategy to meet the near-term critical needs over the next ten years and assist in the making of decisions for the future. The recommendations of the Master Plan are generally as follows:

Congress should immediately authorize the engineering, design and construction of a second chamber 600 feet in length at Lock and Dam 26;

steps should be undertaken to increase the capacity of specific locks throughout the system by employing certain nonstructural measures and making minor structural improvements;

traffic movements on the navigation system should be monitored to update traffic projections, verify lock capacities, and refine economic justifications and implementation dates for future capacity expansion;

Congress should immediately authorize a habitat rehabilitation and enhancement program to plan, construct and evaluate projects to protect, enhance or rehabilitate aquatic and terrestrial habitats lost or threatened as a result of man-induced activities or natural factors;

immediate action should be taken to reduce erosion rates to tolerable levels to help preserve the integrity of all resource values on the Upper Mississippi River System;

Congress should immediately authorize implementation of a long-term resource monitoring program;

Congress should immediately authorize implementation of a computerized inventory and analysis system for data storage and retrieval and for use in the long-term resource monitoring program;

a program for coordinating with potential users should be developed by the concerned states in coordination with the Corps of Engineers, utilizing and updating existing demand information as well as the collection of empirical data to facilitate economically feasible productive uses of dredged material;

Congress should immediately authorize the implementation of a program of recreational projects and the conduct of an assessment of the economic benefits generated by recreational activities in the Upper Mississippi River System;

the States of the Upper Mississippi River System should establish a cooperative arrangement to maintain coordination and management activities for water and related land resources.

Section 1122 incorporates these recommendations insofar as they relate to improvement of the environment and fish and wildlife and recreation resources in the Upper Mississippi River System. Specific direction is not included with regard to the recommendation to reduce erosion rates because this is a matter which can be addressed under existing programs of the Department of Agriculture and the Soil Conservation Service. The Department is expected, however, to emphasize erosion control measures in the Upper Mississippi River System and to coordinate with the Secretary in order to assure that the measures authorized by Section 11222 will be most effective.

Subsection (a) of Section 1122 declares it to be the intent of Congress to recognize the Upper Mississippi River System as a nationally significant ecosystem and a nationally significant commercial navigation system in order to ensure the coordinated development and enhancement of the system. It also includes the recognition of Congress that the system provides a diversity of opportunities and experiences. The System is directed to be administered and regulated in recognition of its several purposes.

Subsection (b) contains a number of definitions. The terms "Upper Mississippi River System" and "System" are defined as meaning those river reaches having commercial navigation channels on the Mississippi River mainstem north of Cairo, Illinois; the Minnesota River, Minnesota; the Black River, Wisconsin; the St. Croix River, Minnesota and Wisconsin; the Illinois River and Waterway, Illinois and the Kaksaskia River in Illinois. The terms "master plan" is defined as meaning the comprehensive master plan for the management of the Upper Mississippi River System dated January 1, 1982, prepared by the Upper Mississippi River Basin and submitted to Congress pursuant to Public Law 95-502. The terms "GREAT I", "GREAT II" and "GRRM Studies" mean the studies entitled "Great River Environmental Action Team—GREAT I-A study of the Upper Mississippi River" dated September 1980, "Great River Environmental Action Team—GREAT II-A study of the Upper Mississippi River" dated December 1980, and "Great River Resource Management Study" dated September 1982.

Subsection (c) contains the approval of Congress of the master plan as a guide for future water policy on the Upper Mississippi River System.

Subsection (d) grants the consent of Congress to the States of Illinois, Iowa, Minnesota, Missouri, and Wisconsin or any two or more of such states to enter into agreements not in conflict with any law of the United States for cooperative effort and mutual assistance in the comprehensive planning for the use, protection, growth and development of the Upper Mississippi River System, and to establish such agencies, joint or otherwise, or designate an existing multistate entity as they may deem desirable for making effective such agreements. It also authorizes the Secretary to enter into cooperative agreements with the Upper Mississippi River Basin Association or any other agency established under Subsection (d) to promote and facilitate active state government participation in the river system management, development and protection.

Subsection (d) also designates the Upper Mississippi River Basin Association or any other agency established under Subsection (d) as the caretaker of the Master Plan. Any changes to the Master Plan recommended by the Secretary are to be submitted to the Association or agency for review. Such agency or Association may make comments with respect to the recommendations of the Secretary as the agency or Association deems appropriate and shall transmit the comments to the Secretary. The Secretary is directed to transmit the recommendations along with the comments of such agency or Association to the Congress for approval.

Subsection (e) authorizes the Secretary in consultation with the States of Illinois, Iowa, Minnesota, Missouri and Wisconsin to undertake, as identified in the Master Plan, a program for the planning, construction and evaluation of measures for fish and wildlife habitat rehabilitation and enhancement; implementation of a long-term resource monitoring program; and implementation of a computerized inventory and analysis system. Each of these programs is to be carried out over a ten-year period beginning on the date of enactment of this Act. Before the last day of the ten-year period, the Secretary in consultation with the States of Illinois, Iowa, Minnesota, Missouri and Wisconsin is to conduct an evaluation of the programs and submit a report on the results of the evaluation to Congress. The evaluation is to determine each such program's effectiveness, strengths and weaknesses and contain recommendations for the modification and continuance or termination of the program. For the purposes of carrying out the program for the planning, construction and evaluation of measures for fish and wildlife habitat rehabilitation and enhancement, there is authorized to be appropriated to the Secretary not to exceed $8,200,000 for the fiscal year beginning after the date of enactment of this Act, not to exceed $12,400,000 for the second fiscal year, and not to exceed $13 million per fiscal year for each of the succeeding eight fiscal years. For purposes of carrying out the implementation of a long-term resource monitoring program, there is authorized to be appropriated to the Secretary not to exceed $7,680,000 for the first fiscal year after date of enactment and not to exceed $5,080,000 per fiscal year for each of the succeeding nine fiscal years. For purposes of carrying out the implementation of a computerized inventory and analysis system, there is authorized to be appropriated to the Secretary not to exceed $40,000 for the first fiscal year beginning after the date of enactment, not to exceed $280,000 for the second fiscal year, not to exceed $1,220,000 for the third fiscal year, and not to exceed $975,000 per fiscal year for each of the succeeding seven fiscal years.

The Secretary is directed to determine if the States of Illinois, Iowa, Minnesota, Missouri and Wisconsin are adequately participating in the planning, construction, evaluation and implementation of the authorized programs during the third fiscal year after the first appropriation of funds to carry out the programs. If participation of the States is not adequate to allow the Secretary to carry out the programs, the Secretary is to submit a report to Congress requesting termination of the program's funding. None of the funds appropriated pursuant to any authorization contained in Subsection (e) is to be considered to be chargeable to navigation purposes on the Upper Mississippi River System.

Subsection (f) authorizes the Secretary, in consultation with any agency established under Subsection (d)(1) of this Section, to implement a program of recreational projects for the system substantially in accordance with the recommendations of the GREAT I, GREAT II and GRRM Studies and the Master Plan reports. In addition, the Secretary is directed to conduct an assessment of the economic benefits generated by recreational activities in the system. For purposes of carrying out the program of recreational projects there is authorized to be appropriated to the Secretary not to exceed $500,000 per fiscal year for each of the first ten fiscal years beginning after the effective date of the Act. For purposes of carrying out the assessment of the economic benefits of recreational activities there is authorized to be appropriated to the Secretary not to exceed $300,000 per fiscal year for the first and second of such fiscal years, and $150,000 for the third of such fiscal years.

Subsection (g) directs the Secretary in consultation with any agency established under Subsection (d) to submit to Congress annual recommendations of measures to be undertaken to increase the capacity of specific locks throughout the system by employing nonstructural measures and making minor structural improvements.

Subsection (h) directs the Secretary in consultation with any agency established under Subsection (d) to monitor traffic movements on the system for the purpose of verifying lock capacity, updating traffic projections and refining the economic evaluation so as to verify the need for future capacity expansion of the system. The Secretary in consultation with the States of Illinois, Iowa, Minnesota, Missouri and Wisconsin is also directed to determine the need for river rehabilitation and environmental enhancement based on the condition of the environment, project developments, and projected environmental impacts from implementing any proposals resulting from recommendations made under subsection (g) and paragraph (1) of subsection (h) relating to traffic projections and economic evaluation and future expansion of the system. There is authorized to be appropriated to the Secretary for each of the ten fiscal years beginning after the date of enactment of the bill, such sums as may be necessary to carry out subsection (h).

Subsection (i) directs the Secretary as he determines feasible to dispose of dredged material from the system pursuant to the recommendations of the GREAT I, GREAT II, and GRRM studies. The Secretary is directed to establish and request funding of a program to facilitate uses of dredged material. Coordination with affected States is required.

SECTION 1123

Subsection (a) of this section directs the Secretary to extend the navigation season of the Great Lakes and their connecting channels and the St. Lawrence Seaway substantially in accordance with the recommendations of the District Engineer of the Detroit District contained in his August 1979 report, including such modifications as may be recommended by the Secretary in the final report submitted under subsection (b).

Subsection (b) directs the Secretary to report annually to the Congress on the status of the environmental studies required to be undertaken in connection with the extension of the navigation season. Not later than June 30, 1989, a final report is to be submitted to Congress on these studies and the results of the program for extension of the season, together with any recommendations of the Secretary for modifications to the project for the extension of the navigation season.

Subsection (c) provides that no appropriation for implementation of any modification recommended by the Secretary shall be made if the modification has not been approved by resolutions adopted by the Committee on Public Works and Transportation of the House and the Committee on Environment and Public Works of the Senate.

The River and Harbor Act of 1970 authorized the Secretary to conduct a survey of the Great Lakes and St. Lawrence Seaway to determine the feasibility of means of extending the navigation season. It also authorized the Secretary to undertake a program to demonstrate the practicability of extending the navigation season and to submit a report describing the results of the program to Congress. The 1979 report is in response to that authorization and the information gathered as part of the demonstration program.

The report concludes that season extension is engineeringly and economically feasible year-round on the upper three Great Lakes, up to year-round on the St. Clair River-Lake, St. Clair-Detroit River System and Lake Erie, and up to ten months on Lake Ontario and the International section of the St. Lawrence River.

The report recognizes that formal agreement with the Government of Canada is required for any extension on the system beyond the upper three Great Lakes. An environmental plan of action would be accomplished concurrently with implementation and execution of post-authorization planning, engineering, construction and operations, with provisions to modify or stop the program if unacceptable environmental impacts surface.

Prior to submission of the report to Congress for authorization, it was determined that the Corps of Engineers already possessed sufficient authority under its general operation and maintenance authority to carry out an extension of the navigation season. The purposes of Section 1123 are to direct that the extension be carried out and to ensure that a report on the implementation of the project and the results of the environmental studies is submitted to Congress for its further consideration.

The Great Lakes and their connecting channels, canals and the St. Lawrence River have served as a vital transportation corridor to the midlands of the United States and Canada since their discovery in the 16th and 17th centuries. This system has served both nations since the 1800s in providing an essential commercial transportation link for bringing bulk goods from their sources to the industrial and distribution centers of the Great Lakes region for use by the two nations and the world. This was accomplished by modifying the natural waterway system during the 19th and 20th centuries by the use of channels and locks. The system is sometimes described as having an upper and lower portion. The upper portion of the system is maintained and operated by the United States and consists of Lakes Superior, Michigan, Huron and Erie, and the connecting channels and locks on the St. Marys River. The upper portion of the system can accommodate bulk carriers with drafts of 25 feet 6 inches at low water datum, lengths of 1,100 feet and widths of 105 feet. There are presently a number of 1,000-foot bulk carriers operating in this portion. The lower portion of the system consists of the Welland Canal, which is operated by Canada and also includes Lake Ontario and the St. Lawrence River. In the portion of the St. Lawrence River known as the International Section operation and maintenance are shared by the United States and Canada. The balance of the River is operated and maintained by Canada. The lower portion of the system can accommodate vessels with drafts of 26 feet, lengths of 730 feet, and widths of 76 feet.

Historically, vessel movement throughout the system starts on or about April 1 of each year and continues through about December 15, with some variation between the northern and southern portions of the Great Lakes. Vessel movement does take place in varying degrees during the period normally considered the winter closedown.

Implementation of the recommended plan would require provision of structural and nonstructural measures. Those measures which would be undertaken by the Corps of Engineers include:

ice control structures in Great Lakes harbors and connecting channels;

air bubbler systems in Great Lakes harbors and connecting channels;

lock modification at Sault Ste. Marie, Michigan;

dredging in the St. Marys River;

compensating works in the St. Clair River;

shoreline and shore structure protection in the St. Marys, St. Clair and Detroit Rivers;

island transportation assistance in the St. Marys River;

water level monitoring in the St. Marys, St. Clair and Detroit Rivers;

Great Lakes connecting channels operational plans;

environmental plan of action with United States Fish and Wildlife Service.

Also involved would be measures directly related to the responsibility of other Federal agencies, non-Federal agencies and private interests such as implementing measures to safeguard shipping and protect crews, overcome other ice navigation difficulties, initiating coordination with Canada, initiating harbor improvements, and the like.

Because of the complexity and vastness of the Great Lakes-St. Lawrence Seaway system and the need for Canadian participation, phased implementation of the project will be necessary. The phases would be generally as follows:

> implementation of those measures required for year-round navigation on the upper three Great Lakes;
>
> implementation of measures required to provide a 15-day extended closing on the Welland Canal, Lake Ontario, St. Lawrence River Reach, to December 31;
>
> implementation of measures required to provide up to year-round navigation on the St. Clair-Detroit Rivers and Lake Erie;
>
> implementation of measures required to provide for approximately an 11-day early opening starting on March 20 on the St. Lawrence River and use of the Welland Canal;
>
> 10-month navigation from approximately March 7 to January 7 on the St. Lawrence River portion of the system and use of the Welland Canal;
>
> 11-month navigation on the St. Lawrence River from approximately February 7 to January 7 and use of the Welland Canal.

The environmental plan of action, which is a part of the project, presents the recommended program for assuring that the environment of the Great Lakes system would be protected adequately during development of an extended season program. The recommended program contains a plan called an adaptive method which provides checks and balances to assure environmental protection. It is based on the principle that the extended season program would be modified and, if necessary, a moratorium on program activities would be put into effect if unacceptable environmental impacts are encountered. The environmental plan of action includes methods for assessing environmental impacts, studies to be conducted, and estimates of study costs. Baseline environmental data would be gathered and studies and predictions of measurements of effects would continue throughout preconstruction planning and actual implementation of the project.

During Committee consideration of this bill, concerns about this section were raised by Members from New York who had been contacted by the Governor, State agencies and environmental groups. At that time, those expressing these concerns chose not to offer an amendment, and it was agreed that language would be developed addressing the concerns of the involved Members, prior to bringing this bill to the floor of the House.

SECTION 1124

This section provides that where a project includes the acquisition of lands for the mitigation of fish and wildlife losses attributable to the project, or for fish and wildlife enhancement, these lands are to be acquired either in advance of construction of the project, or along with the acquisition of lands and interests in lands for project purposes, whichever the Secretary determines appropriate. This Section is designed to ensure that the acquisition of mitigation lands is not delayed and to reduce the possibility of clearing or development of lands proposed for acquisition before they are actually acquired. It will work in conjunction with the Environmental Protection and Mitigation Fund, which is available for acquisition of mitigation lands prior to project construction. Section 1124 applies to acquisition of lands as the first step of project construction and during other acquisition of lands needed for the project. The two provisions working together give the Secretary necessary authority to acquire mitigation lands well in advance of project construction if this is needed to protect those lands, and also ensure that when funds are first appropriated to initiate construction of a project, acquisition of mitigation lands shall be either the first or among the first actions to be taken.

SECTION 1125

This section provides that where a water resources project involves the acquisition of lands for recreational purposes these lands are to be acquired along with the acquisition of lands for other project purposes. This section is similar to Section 1124 in that it is designed to ensure that the acquisition of recreation lands will occur on a timely basis and prior to any project-induced development which might occur of potential recreation lands.

SECTION 1126

This section provides that the Secretary shall not require non-Federal interests to assume operation and maintenance of any recreational facility operated by the Secretary at any water resources project as a condition to the construction of new recreational facilities at such project or any other water resources project.

Section 4 of the Flood Control Act of December 22, 1944, authorizes the construction of recreation facilities at Corps of Engineers water resources projects. Pursuant to this authority, the Corps of Engineers has constructed many facilities and has encouraged states and local interests to assume management of the facilities. A number of recreation facilities are, however, operated by the Corps of Engineers. The Federal Water Project Recreation Act of 1965 instituted a new cost-sharing policy for recreational development at Federal water resources projects. It required non-Federal interests to pay 50 percent of the construction costs and to operate and maintain the recreation areas after completion. This cost-sharing policy has been administratively applied to facilities constructed under the 1944 Act. In 1982, the Department of the Army implemented a new policy with regard to construction of new recreational facilities at Corps of Engineers projects. It was determined that funding would be recommended for new areas only if non-Federal interests agreed to assume responsibility for operation and maintenance of recreation facilities now being undertaken by the Corps. Also, the Federal capital investment involved in the new facilities would have to be more than offset by operation and maintenance reductions resulting from non-Federal assumption of responsibility for facilities now operated by the Corps.

This policy has two effects. First, it effectively makes recreation development at Corps of Engineers projects totally a non-Federal responsibility, because the non-Federal interests must agree to assume enough operation and maintenance activities to more than offset the construction cost of the new facilities. Second, it totally precludes any new recreational development in those areas where there are no Federally-operated recreation facilities for which the non-Federal interests can assume operation and maintenance. The Committee considers this policy ill-founded and contrary to the intent of Congress expressed in the 1965 Federal Water Project Recreation Act, and has accordingly included section 1126.

SECTION 1127

This section directs the Secretary to establish in the Directorate of Civil Works of the Office of the Chief of Engineers an Office of Environmental Policy. This Office is to be responsible for the formulation, coordination and implementation of all matters concerning environmental quality and policy as they relate to the Water Resources Program of the Corps of Engineers. The Office shall, among other things, develop, and monitor compliance with, guidelines for the consideration of environmental quality in the formulation and planning of water resources projects carried out by the Secretary, the preparation and coordination of environmental impact statements for such projects, and the coordination with Federal, State and local agencies of environmental aspects of such projects and the regulatory responsibilities of the Secretary. Environmental aspects of Corps of Engineers water resources projects and of the Corps of Engineers Regulatory Program constitute an ever-increasing amount of the planning, coordinating and decision-making process in view of the importance of preserving and enhancing environmental values. The Committee feels that the establishment of an Office of Environmental Policy in the Civil Works Directorate of the Corps of Engineers will assist in highlighting the importance of environmental concerns and will contribute beneficially to the establishment of uniform guidelines and procedures.

SECTION 1128

This section modifies the Secretary's authority to accept contributed funds to be used in connection with project construction to provide that no funds may be accepted or expended unless such acceptance and expenditure have been specifically authorized by law. It also amends the Secretary's authority to accept advances of funds to be expended in connection with construction of projects from non-Federal interests in the same fashion. The Department of the Army has cited these statutes as authority for its policy that no funds will be recommended for new construction starts of water resources projects unless non-Federal interests agree to provide local cooperation greater than that required by the project authorization. The Committee feels very strongly that changes in cost-sharing for authorized projects should be made by the Congress and not unilaterally by the Administration without benefit of Congressial review and action.

SECTION 1129

This section authorizes to be appropriated to the Secretary an amount not to exceed $15 million to carry out agreements entered into with the State of Illinois pursuant to Section 110 of the River and Harbor Act of 1958 relating to the repair and modification of the Illinois and Mississippi Canal. This amount is in addition to amounts previously authorized to be appropriated.

The Corps of Engineers constructed the Illinois and Mississippi Canal between 1892 and 1907. Illinois operated and maintained the Canal until June 30, 1951, when it was closed to traffic. Studies were conducted on the feasibility of draining and abandoning the Canal or converting it into a parkway. On August 1, 1970, ownership of the Canal was turned over to the State of Illinois, which has been operating the Canal since that date as the Hennepin Canal Parkway. As part of the transfer to the State, Congress authorized rehabilitation work on the Canal in the amount of $8,528,000. This rehabilitation work was started in the 1960s and continued until three counties and the township road commissioners within those counties sued the Federal government in 1974 over maintenance of highway bridges. After the lawsuit was filed, further work on the Canal was suspended in order to avoid the possibility of subjecting the government to liability over and above the authorized amount of appropriations. In accordance with the judgment in this lawsuit, $3,723,000 was deposited with the clerk of the court to be used by the counties in repairing and rehabilitating highway bridges over the Canal. Design and construction of this work by the counties is currently underway.

After deducting the amount spent on rehabilitation work prior to the lawsuit, which was $3,664,000 plus the judgment fund, the remaining authorization to complete the rehabilitation work is $1,141,000. This amount is inadequate. It is estimated that at today's prices an additional $15 million will be required to perform the work authorized by the 1958 Act as amended. Section 1129 provides this authority.

SECTION 1130

This section provides that for purposes of analyzing the costs and benefits of any project recommended by the Secretary as a result of any study on the Pearl River Basin, Mississippi and Louisiana, which was authorized prior to the date of enactment of the bill, the Secretary shall take into account the costs and benefits of any measures undertaken by the Secretary pursuant to any provision of law enacted after July 1, 1983 and before December 31, 1984 in the interest of preventing flood damages along the Pearl River in the vicinity of Jackson, Mississippi.

The Secretary is currently conducting a study of flood and related problems in the Pearl River Basin, Mississippi and Louisiana, including among other things flood problems at Jackson, Mississippi. Chapter 4 of the Supplemental Appropriations Act for Fiscal Year 1983 (Public Law 98-63) authorizes and directs the Secretary to design and construct and undertake measures necessary to provide a level of protection as the Chief of Engineers determines necessary to prevent recurring flood damages along the Pearl River in the vicinity of Jackson, Mississippi, substantially in accordance with preliminary plans developed by the Mobile District engineer at a currently estimated cost of $26,500,000. This provision is in response to the very serious flooding which has occurred in the area. It will address some of the flooding problems in the basin, but serious problems will still remain and are being addressed by the Corps of Engineers in its comprehensive study. Among other things this study is examining the feasibility of constructing a dry reservoir at the Shoccoe site in order to provide flood protection for the City of Jackson.

The purpose of Section 1130 is to ensure that the work undertaken separately under authority of the Supplemental Appropriations Act will not adversely affect the economics of any overall project developed by the Corps of Engineers. This work, for purposes of economic analysis, is to be considered a part of any overall project which is recommended so that the overall project may be considered as a whole and not in separate increments.

SECTION 1131

This section provides that the prohibitions and provisions for review and approval of activities in waters of the United States as set forth in Sections 9, 10 and 13 of the Act of March 3, 1899, the first Section of the Act of June 13, 1902, and Section 404 of the Federal Water Pollution Control Act shall not apply to any works or improvements constructed or maintained now or in the future in the Great Miami River Basin, the Great Miami River and the tributaries of the Great Miami River above river mile 7.5 by any political subdivision established pursuant to Chapter 6101, Ohio Revised Code, as in effect on July 1, 1983.

SECTION 1132

This section provides that any project authorized for construction by the bill shall not be authorized after the last day of the five-year period beginning on the date of enactment of the bill unless, during such period, funds have been obligated for construction, including planning and designing, of the project. This section is designed to encourage early consideration of funding for water resources development projects. If no funds have been obligated within five years, then the authorization expires and reauthorization will be necessary after appropriate review by the authorizing Committees to ensure that the project meets then existing conditions and policies. The section will prevent a large backlog of unconstructed projects from accumulating and will provide an incentive for funding projects for construction within a reasonable period following authorization.

SECTION 1133

Subsection (a) of this section provides that on and after January 1, 1990, the Secretary shall continue in effect any cottage site lease of property, or assignment of the lease, until such time as the lease is terminated by the leaseholder or by the Secretary under subsection (b). Any such continuation beyond the date of expiration of such lease as in effect on January 1, 1990, shall be at fair market rentals and on such other reasoanble terms and conditions as the Secretary deems necessary. No continuation shall be made unless the leaseholder agrees to hold the United States harmless from any claim for damages or injury to persons or property arising from occupancy of, or through the use of, the property subject to the lease.

Subsection (b) provides that on or after January 1, 1990, the Secretary may terminate a lease only if the property covered by the lease is needed for immediate use for public park purposes or other higher public use or for a navigation or flood control project, or if the leaseholder violates a provision of the lease.

Cottage site leases are presently included under the provisions of Section 6 of Public Law 97-140 which provides that no houseboat, floating cabin, marina, or lawfully installed dock or cabin shall be required to be removed before December 31, 1989 from any Federal water resources reservoir or lake project administered by the Secretary if the property is maintained in usable condition and does not occasion a threat to life or property. Section 1133 establishes a policy for cottage site leases beginning immediately after the date specified in Section 6. The Corps of Engineers has issued a large number of special use licenses and cabin site leases, particularly in the area of the Upper Mississippi River. Over 800 licenses have been issued to adjacent landowners and others along the Mississippi River to construct stairways, docks, and similar private residential structures to gain access to the water. With respect to cabin site leases, the Corps has a total of 1,023 such leases along the Mississippi River and an additional 335 along the Illinois River. The Corps of Engineers, in the late 1960s, established a policy to phase out all cottage site and residential leases. The present policy, following enactment of Public Law 97-140, provides that leases will be extended to a common expiration date of December 31, 1989. The Committee feels that as long as the leaseholder is not violating a provision of the lease and is paying fair market value, and as long as the property covered by the lease is not needed for immediate use for public park purposes or other higher public use or for a navigation or flood control project, the leases should be allowed to remain in effect. This policy is enunciated in Section 1133.

SECTION 1134

This section defines the so-called "discretionary authority" of the Secretary to make modifications to projects without seeking additional authority from the Congress. The term "discretionary authority" arises from the inclusion of the phrase in recommendations of the Chief of Engineers in accordance with which projects are traditionally authorized that the project be authorized with such modifications as in the discretion of the Chief of Engineers may be necessary. Traditionally, the authority of the Corps of Engineers to make changes has been construed in a limited manner and Section 1134 makes such a limitation more formal. The Secretary is authorized to make modifications which reflect changes in construction costs as are indicated by engineering and other appropriate cost indices; which do not materially alter the scope or function of the project; or which are the resut of additional studies, modifications or other actions including mitigation and other environmental actions, authorized by the bill or any other law enacted before, on or after the date of enactment of this Act.

Increases in project costs associated with inflation have been recognized as being within the project authorization. With regard to modifications which do not materially alter the scope or function of the project, these have generally been regarded as including changes in design necessary to meet unexpected foundation conditions, extensions of levees and other structures to meet changes in the area, so long as they are not significant extensions, and modifications in the scope of project functions, so long as these are not significant and do not involve the deletion of a project purpose or the addition of a project purpose not otherwise authorized by law. For example, minor reductions in flood control storage in reservoirs, or minor increases in storage for water supply or conservation purposes, have always been regarded as within the Corps' discretionary authority.

In all cases, of course, there comes a point where it is a matter of judgment whether changes are or are not significant. This is a matter which cannot be resolved by legislation and must remain, as it has always been, a question for the courts.

One of the best descriptions of the Corps' discretionary authority is found in the special report on Corps of Engineers civil works activities prepared in 1952 by the House Public Works Committee's Subcommittee to Study Civil Works. In a report by the Chief of Engineers, printed as part of the Subcommittee's report, it was stated:

> Favorable survey reports submitted to Congress by the Corps of Engineers usually recommend authorization of a certain improvement subject to such modifications as in the discretion of the Chief of Engineers may appear advisable. The Corps of Engineers recognizes that such permission to alter authorized projects is an important delegation of authority, and has attempted to exercise that privilege carefully. The Corps classes such permissible modifications in two categories:
>
> a. Those necessary for engineering or construction reasons to produce the full usefulness of the improvement envisioned by Congress, such as shifting a dam from one site to a more adequate nearby site; changes in storage capacity or allocation of a reservoir to ensure its optimum performance for all interests; changes in channel alinement as indicated by more detailed surveys; or change from a concrete to an earth dam, or vice versa, as dictated by more complete foundation explorations or the relative availability and cost of construction materials.
>
> b. Moderate extensions of authorized project limits, such as levee extension to protect developing urban areas or increasing the size of locks to meet changing requirements of navigation. Such changes are considered to be those required to meet changing engineering or economic condi-

tions, and within the intent of Congress in authorizing the project.

On the other hand, the Corps considers it necessary to bring project modifications to the attention of Congress for specific action whenever modifications will—

a. Materially alter the scope or functions of the project.

b. Materially change the authorized plan of improvement.

c. Involve special circumstances unknown to the Corps and to Congress when the project was authorized.

SECTION 1135

Subsection (a) of this section authorizes the Secretary to review the operation of water resources projects constructed by the Secretary before the date of enactment of this Act in order to determine the need for modifications in the structures and operations of the projects for the purpose of improving the quality of the environment in the public interest. Many older projects were constructed without current higher requirements to protect and enhance the environment. Also, there are instances where unexpected environmental effects have occurred. Subsection (a) provides the authority to study these projects and determine whether it is feasible to modify their operation and structures for the purpose of environmental quality. One of the matters expected to be examined is the effect of reservoir releases on water quality and the feasibility of measures to achieve such results as an increase in dissolved oxygen in the released waters, changes in temperature, changes in release schedules to accommodate downstream fisheries, and the like.

Subsection (b) authorizes the Secretary to carry out a demonstration program for a two-year period beginning on the date of enactment of this Act for the purpose of making such modifications in the structures and operations of water resources projects which the Secretary determines are feasible and consistent with the authorized project purposes and which will improve the quality of the environment in the public interest.

Subsection (c) directs the Secretary to coordinate any actions taken pursuant to this Section with appropriate Federal, state and local agencies. The Committee notes in this regard that the Tennessee Valley Authority has done a considerable amount of work in the area of improving the quality of waters released from dams. Subsection (d) directs the Secretary to transmit to Congress not later than two years after the date of enactment of the bill a report on the results on the review conducted under subsection (a) and on the demonstration program conducted under subsection (b). This report is to contain any recommendations of the Secretary concerning modification and extension of the program.

Subsection (e) authorizes to be appropriated not to exceed $25 million to carry out the Section.

SECTION 1136

This section authorizes the Secretary to reconstruct, rehabilitate and maintain the New York State Barge Canal for commercial, recreation, historical and environmental purposes in accordance with the recommendations of the Secretary in the report which is to be transmitted under Subsection (b) of this section. Before performing any such work, the Secretary must enter into an agreement with the State of New York which provides that the State of New York will pay to the Secretary an amount equal to 50 percentum of the costs of reconstruction and rehabilitation and 50 percentum of the annual costs of maintaining the Canal. The State of New York is to continue to own and operate the Canal.

Subsection (b) directs the Secretary to study the need for reconstruction and rehabilitation of the Barge Canal for commercial, recreation, historical and environmental purposes. Not later than two years after the date of enactment of the Act the Secretary is to transmit to the House Public Works and Transportation Committee and the Senate Environment and Public Works Committee a report on this study along with recommendations of the Secretary for rehabilitation and reconstruction. No appropriation may be made for any rehabilitation and reconstruction if they have not been approved by resolutions adopted by the two Committees.

Subsection (c) defines the term "New York State Barge Canal" for the purposes of the Section. It is defined as including the Erie Canal, the Oswego Canal, the Champlain Canal and the Cayuga and Seneca Canals.

This waterway represents an important historical achievement and still presents the potential for enhancing both commercial and recreational navigation. Section 1136 will provide a means for determining whether its rehabilitation and reconstruction are needed and approporiate measures to be taken. In view of the traditional policy of Federal responsibility for 50 percent of the costs of recreational navigation and the state ownership of this Canal, the Committee feels that 50 percent cost-sharing is appropriate.

The Committee is concerned about the deteriorating condition of the New York State Barge Canal, which is the only state-operated waterway in the Nation. The Corps of Engineers and others have warned that if the deterioration continues at the present pace, the Canal may have to be closed for commercial use within the decade. Funds for operations and maintenance, as well as reconstruction and rehabilitation, need to be provided as soon as possible.

In view of the fact that the Canal has been under study by the Corps since 1973, the Committee expects that the Corps will complete the study mandated by this legislation well within the allotted two years. The Committee also directs that the study shall be carried out in cooperation with the State of New York.

SECTION 1137

This section authorizes the Secretary to develop and implement a flood warning system for the Whitewater River, San Bernardino and Riverside Counties, California. Non-Federal interests must agree to operate and maintain the system and develop, maintain and implement emergency evacuation plans satisfactory to the Secretary. This Section will provide a measure of protection from floods to the residents of the area at a minimum cost.

SECTION 1138

Subsection (a) of this section provides that the Secretary shall, to the extent he determines feasible, provide for the employment of residents of the labor market area in which a water resources project is constructed.

Subsection (b) provides that not later than 90 days after the President or any other official requests the appropriation of initial funds for any water resources project, the Secretary shall transmit to Congress current information on the potential benefits of the project which are attributable to the employment of unemployed residents of the labor market area in which the project is located. This provision is designed to ensure that the Congress has current information on these benefits when funds are first appropriated for project construction.

Subsection (c) provides that the term "labor market area" shall have the meaning given such term by the Secretary of Labor. A labor market area has a high rate of unemployment if the average rate of unemployment for the area, as determined by the Secretary of Labor over the most recent 12-month period for which statistics are available, is higher than the national average rate of unemployment over the same period.

SECTION 1139

This section provides that the uniform allowance for uniformed civilian employees of the United States Army Corps of Engineers may be up to $400 annually. Current law provides for an initial and replacement uniform allowance of $125. On the basis of initial purchase of uniform items at 1982 prices, the amount required is in excess of $700. Maintenance of the uniform costs between $75 and $100 annually. In 1976 the uniform allowance for the National Park Service was increased to an amount up to $400. The Fish and Wildlife Service allowance was increased to the same limit in 1980. Section 1139 provides the same allowance for uniformed Corps employees as is provided for employees of the other Federal agencies.

SECTION 1140

Section 145 of the Water Resources Development Act of 1976 authorizes the Secretary to place clean, suitable dredged material from navigation projects on beaches for the purpose of beach restoration and beach erosion control if non-Federal interests agree to pay the additional costs associated with depositing the material on the beach as opposed to depositing it in the planned disposal area. Section 1140 amends section 145 to provide that the state share shall be 50 percent of the additional cost rather than 100 percent. The Committee feels this is appropriate in view of the fact that existing law provides for 50 percent Federal cost-sharing for the protection of public beaches.

SECTION 1141

This section directs the Secretary to amend the contract between the State of Illinois and the United States for use of storage space for water supply in Rend Lake on the Big Muddy River in Illinois to relieve the State of Illinois of the requirement to make annual payments for that portion of the maintenance and operation costs applicable to future water supply storage as is consistent with the Water Supply Act of 1958, until such time and in such proportion as the storage is used for water supply purposes. At the present time the State is only using approximately 35 percent of the storage space which is available in Rend Lake. However, under the terms of its contract with the United States, it is paying operation and maintenance costs of the project allocated to the entire amount of water storage space. Section 1141 permits amendment of the contract to make it consistent with the requirements of the Water Supply Act of 1958, under which it was entered into.

SECTION 1142

This section directs the Secretary to make a loan to the City of Hawaiian Gardens, California, to pay the cost of acquisition and rehabilitation of the water supply system owned by the Southern California Water Company, which serves the City. The estimated cost of purchase is $8,500,000. The loan is to be made after an agreement for the sale is reached between the Walter Company and the City. The City is required to repay the cost of acquisition and rehabilitation to the Secretary in accordance with the Water Supply Act of 1958.

SECTION 1143

This section directs the Secretary to procure by contract not less than 30 percent of architectural and engineering services required for the design and construction of water resources projects undertaken by the Secretary. Because of the duty imposed on the Corps of Engineers to be ready to undertake increased military construction roles in times of emergency, it is important that the Corps maintain within its Civil Works Program the capability of performing architectural and engineering services. However, it is also important that not all of these services be performed by government personnel. The size of the workload varies and it would not be feasible to maintain sufficient manpower to meet near maximum levels at all times. Also, there is a need to maintain capability in the private sector. The Committee, in section 1143, has balanced these needs by requiring that at least 30 percent of architectural and engineering services for the design and construction of water resources projects be procured by contract.

SECTION 1144

This section requires that any surveying or mapping services to be performed in connection with a water resources project which is undertaken by the Secretary shall be procured in accordance with Title IX of the Federal Property and Administrative Services Act of 1949. This provision makes it clear that negotiated contract procedures may be utilized in the procurement of surveying and mapping services.

SECTION 1145

This section abolishes the California Debris Commission. The Commission was established by the Act of March 1, 1893 for the purpose of controlling debris in navigable waters which resulted from upstream hydraulic mining. The Commission is no longer needed. The authorities, powers, functions and duties of the Commission are transferred to the Secretary. The assest, liabilities, contracts, property records and the unexpended balance of appropriations, authorizations, allocations and other funds are also transferred to the Secretary for appropriate allocation. Unexpended funds transferred pursuant to this subsection shall be used only for the purposes for which the funds were orignially authorized and appropriated.

All acquired lands and other interests therein presently under the jurisdiction of the Commission are authorized to be retained and shall be administered under the direction of the Secretary, who is authorized to take such actions as are necessary to consolidate and perfect title, to exchange lands for other lands or other interests therein which may be required for recreation or for existing or proposed projects of the United States, to transfer to other Federal agencies or dispose of as surplus property and to release to the co-extensive owners any easements no longer required by the United States under such conditions.

The authorities of the California Debris Commission can be better and more efficiently exercised by the Secretary, as the current level of activities which the Commission was created to address no longer warrant maintaining the Commission as an entity.

SECTION 1146

The Corps of Engineers has authority to provide emergency supplies of drinking water to areas where public health is threatened by a contaminated water supply. Section 1146 amends this authority by striking out the word "drinking". This is intended to make it clear that the Corps may supply uncontaminated water which might be used for purposes other than only drinking, including cooking, washing, medical uses and essential municipal uses. The section also adds the provision that in any case in which the Chief of Engineers is otherwise performing work under the Corps' authority to provide emergency flood fighting work in an area for which the governor of the affected State has requested a determination that an emergency or a disaster exists under the Disaster Relief Act, the Chief of Engineers is authorized to perform, on public and private lands and waters for a period of ten days following the governor's request, any emergency work made necessary by the emergency or disaster which is essential for the preservation of life and property. This includes, but is not limited to, channel clearance, emergency shore protection, clearance and removal of debris and wreckage endangering public health and safety, and temporary restoration of essential public facilities and services.

When the Corps of Engineers is already in an area performing emergency flood fighting work, allowing it to remain and perform other essential services pending the determination on an application for emergency or disaster relief will provide necessary assistance which is not otherwise available until the declaration under the Disaster Relief Act is approved or denied.

SECTION 1147

When beach nourishment through the periodic deposition of sand was first recommended by the Corps of Engineers and authorized by the Congress as a means of beach erosion control and shore protection, the nourishment period was established at ten years on the basis that these were experimental projects and this period would enable proper evaluation. Later, as nourishment was shown to be feasible, authorized projects provided for nourishment for the life of the project. Section 156 of the Water Resources Development Act of 1976 provided that, in these older projects where only a limited period of nourishment had been recommended, the Secretary was authorized to continue the nourishment for a period of 15 years. This unfortunately was a typographical error. The Committee had intended the authority to be for 50 years. Section 1147 corrects this error.

SECTION 1148

This section amends the various small project authorities of the Corps of Engineers for the purpose of increasing the limitations on individual project costs and overall annual limitations to reflect increases which have occurred in construction costs. Under these authorities, which apply to a variety of types of projects, the Corps is authorized, without the specific authorization of Congress, to undertake construction.

Subsection (a) increases the small flood control project authority from $4 million per project in Federal costs to $7,500,000 per project and the annual limitation from $30 million for such projects to $50 million.

Subsection (b) increases the authority to construct small projects for clearing and snaggging for flood control from $250,000 per project to $750,000 and from an overall annual limitation of $5 million to $10 million.

Subsection (c) increases the amount for emergency streambank and shoreline protection from $250,000 per project to $750,000 and from an annual limit of $10 million ot $15 million.

Subsection (d) increases the authority to construct small navigation projects from $2 million per project to $4 million and from an annual total of $25 million to $50 million.

Subsection (e) increases the authority to construct small beach erosion control projects from $1 million per project to $3 million per project and from a $25 million annual total to $30 million.

Subsection (f) increases the authority to construct shore damage mitigation projects from $1 million to $3 million per project.

Subsection (g) increases the authority to undertake small projects for snagging and clearing in the interest of navigation from a total of $300,000 to $4 million.

Subsection (h) makes it clear that these small project authorities may be used in the Trust Territories of the Pacific Islands.

Subsection (i) provides that the amendments made by this Section shall not apply to any project under contract for construction on the date of enactment of the bill.

SECTION 1149

This section directs the Secretary to expedite completion of the study currently underway of a new lock parallel to the existing Poe Lock, which is being undertaken as part of the study of additional locks on the Great Lakes and Connecting Channels and St. Lawrence Seaway and Channels. The Secretary is directed to submit to the Congress a report on this additional lock not later than September 30, 1985. A new lock is needed to relieve congestion and to eliminate the possibility of complete stoppage of 1,000-foot vessel traffic in the event the Poe Lock, which is the only lock at that particular location which can handle 1,000-foot vessels, should have to be closed down for repair or rehabilitation.

SECTION 1150

This section provides limited authority for continued planning and engineering of water resources projects between the time of completion of the Chief of Engineers report and authorization of the construction of the project. It is designed to maintain the continuity of the planning effort so that important time will not be lost later in restudies and reevaluation and the assembly of a new project study team. It provides that after the Chief of Engineers transmits his recommendations for a water resources development project to the Secretary of the Army for transmittal to the Congress, and before authorization for construction of the project, the Chief of Engineers is authorized to undertake continued planning and engineering for the project if the Chief finds that the project is without substantial controversy and justifies further engineering, economic and environmental investigations and the Chief of Engineers transmits to the Committee on Public Works and Transportation of the U.S. House of Representatives and the Committee on Environment and Public Works of the U.S. Senate, a statement of these findings. The continued planning and engineering does not include preparation of plans and specifications for the project. Section 1150 also provides that in the two-year period after authorization for construction of a project, the Chief of Engineers is authorized to undertake planning, engineering and design for the project. This is designed to continue the preconstruction efforts necessary for a project pending first appropriation of funds. It is, however, limited to two years.

Subsection (b) requires the Secretary to prepare and transmit a report on the activities undertaken under this Section in the preceding fiscal year to the Committee on Public Works and Transportation of the House, and the Committee on Environment and Public Works of the Senate. The report is to be submitted each January 15.

Subsection (c) authorizes not to exceed $20 million per fiscal year for each of the fiscal years 1984 and 1985 to carry out the Section.

Subsection (d) provides that the authorizations made by Section 1150 are in addition to any other authorizations for planning, engineering and design of water resources development projects, and shall not be construed as a limitation on any such other authorizations. This subsection was included so as not preclude the appropriation of funds for preconstruction planning.

SECTION 1151

This section directs the Secretary to reevaluate the feasibility of the Elk Creek Lake feature of the project for the Rogue River, Oregon and California, authorized by the Flood Control Act of 1962, including an evaluation of the feasibility of adding hydroelectric power as a project purpose. The evaluation and justification of the Elk Creek Lane feature shall be based on the benefits and costs of all features of the project for the Rogue River. Hydroelectric power is to be added as a project purpose if the Secretary determines that this addition will increase the amount by which total economic benefits of the project exceed total economic costs. In reviewing the economic feasibility of the project, the Secretary is to use the rate of interest that applied at the time the project was authorized.

The Elk Creek project would be located in Jackson County on Elk Creek, about 26.5 miles north of Medford, Oregon. Elk Creek Lake would be operated in conjunction with Lost Creek Lake as a two-dam system to provide flood control, water supply, fish and wildlife enhancement, water quality control, recreation and irrigation. The project would control run-off from about 132 square miles upstream from the Elk Creek site. A total of 95,000 acre-feet of usable storage at Elk Creek would be utilized for flood control and water conservation. Lost Creek and Elk Creek as a unit would provide water for irrigation of about 25,000 acres of land, provide 20,000 acre-feet of stored water for future water supply, improve stream conditions to enhance the fisheries of Rogue River and tributaries by increased flows and controlled discharges of cooler water, and would reduce the peak stage of floods.

The Elk Creek project was planned and evaluated in conjunction with the Lost Creek project. The overall plan for the Rogue River Basin included these two projects operating together as a unit. The Secretary has determined that the Elk Creek project should be reevaluated as an added increment to the Rogue River Basin project rather than as an integral part of the overall project. The Committee disagrees with this approach because of the relationship of the two projects to each other and their planning and proposed functioning as a unit. It therefore directs in Section 1151 that the project evaluation be based on the benefits and costs of all features of the project for the Rogue River as was originally done.

SECTION 1152

This section provides that the Secretary, in recommending funding for construction of water resources projects, shall not give priority to any project for which the non-Federal interests agree to provide a greater non-Federal share than is required by the law authorizing the project.

The determination of which water resources projects are recommended for construction funding should not be based on the financial capabilities of non-Federal interests to contribute greater amounts of money. In fact, very often projects are most needed in areas where non-Federal interests are least able to afford them. The Committee has therefore included the policy directive in Section 1152, in order to provide greater equity, consistency, and fairness in the implementation of the Corps of Engineers water resources program.

SECTION 1153

This section directs the Secretary to study and evaluate the measures necessary to increase the capabilities of the Corps of Engineers to undertake the planning and construction of water resources projects on an expedited basis and to adequately comply with all requirements of law applicable to the water resources program of the Corps of Engineers. The Secretary is directed to implement such measures as may be necessary to improve these capabilities including the establishment of increased levels of personnel, changes in project planning and construction procedures designed to lessen the time required for such planning and construction, and procedures for expediting the coordination of water resources projects with Federal, state and local agencies.

The Committee is very concerned that possible reductions in the Corps of Engineers will result in the Corps being unable to efficiently meet obligations under existing law. In addition, the bill adds greatly to the responsibilities of the Corps both in the areas of project construction and environmental studies. Additional requirements have also been placed on the process of planning and formulating projects. Also, it is essential to develop methods to lessen the time required for planning and construction of projects. The Committee, therefore, feels it to be very important that the current emphasis on increasing the Corps capability so that the agency can effectively meet the new responsibilities being placed upon it.

SECTION 1154

The Corps of Engineers has constructed and operates many projects which include hydroelectric power production and which currently returns about $250 million annually to the U.S. Treasury. Under accounting procedures presently in use, it is difficult to ascertain the revenues attributable to each project and the amount of each project's costs which have been repaid by revenues from the generation of power. Section 1154 directs the Secretary, not later than January 15, 1985, and each January 15 thereafter, to transmit to the House Committee on Public Works and Transportation and the Senate Committee on Environment and Public Works a report on these projects. This report is to specify the amount of electricity generated by each water resources project which includes hydroelectric power features; it is to specify the revenues received by the United States from the sale of electricity generated by each such project; and it is to specify the costs of construction, operation and maintenance of the project allocated to the generation of electricity. The first report submitted under this section is to specify the amounts of electricity generated, the revenues received, and the costs allocated for each project before October 1, 1984 on a fiscal year basis. Each report submitted thereafter is to specify the amounts of electricity generated, revenues received and the costs allocated for each project for the preceding fiscal year. This will provide very useful information relating to the revenues generated by individual projects and the costs recovered by the Federal Government from the construction and operation of those projects through the generation of hydroelectric power.

SECTION 1155

Section 22 of the Water Resources Development Act of 1974 authorizes the Secretary to provide planning assistance to the States in the area of water resources development. Section 1155 amends that Section to make it clear that the term "state" includes not only the several States of the United States, but the Commonwealth of Puerto Rico, Guam, American Samoa, the Virgin Islands, the Northern Mariana Islands and the Trust Territory of the Pacific Islands.

SECTION 1156

This section provides conditions under which the President may appoint a regular officer of any of the Armed Forces who is serving on active duty as the Federal Commissioner of the Red River Compact Commission. Acceptance by a regular officer of an appointment as the Federal Commissioner of the Commission or the exercise of the function of the Federal Commissioner and Chairman of such Commission by such officer shall not terminate or otherwise affect the officer's appointment as a military officer.

SECTION 1157

This section directs the Secretary to undertake such measures as are necessary to ensure that standard and uniform procedures and practices are followed by each district office (and each division office for any area in which there is no district office) of the Corps of Engineers in the preparation of feasibility reports on water resources projects. For the water resources program to function effectively, it is necessary that all feasibility reports be prepared in accordance with the same procedures and practices. This enables the Congress to evaluate these reports with greater sureness and confidence.

SECTION 1158

Section 6 of the River and Harbor Act approved March 3, 1909, authorizes the Secretary to reconstruct locks and dams when the condition of a lock or dam is such that its reconstruction is essential to its efficient and economic maintenance and operation. The authority to reconstruct the dam is limited to a reconstructed project which will serve the needs of existing, as opposed to future, traffic. Section 1158 removes the requirement that the reconstuction serve only the needs of existing navigation. It adds, however, the requirement that no appropriation shall be made for the acquisition of any interest in property for, or the actual construction of, any such reconstruction if the acquisition and actual construction have not been approved by resolutions of the House Committee on Public Works and Transportation and the Senate Committee on Environment and Public Works. This Section removes an inhibiting limitation on the Secretary's general authority to undertake essential reconstruction projects but adds the requirement of Committee review prior to appropriations in order to ensure appropriate Congressional involvement in the process.

SECTION 1159

Subsection (a) of this section provides that in the preparation of feasibility reports for projects for flood damage prevention in urban and rural areas, the Secretary shall consider and evaluate measures to reduce or eliminate damages from flooding without regard to frequency of flooding, drainage area and amount of run-off.

In 1978, the Department of the Army adopted new regulations defining the Federal interest in urban flood control problems. The Federal interest was limited to those cases where the ten-year flood is greater than 800 cubic feet per second (cfs) and the drainage area is greater than 1.5 square miles. Where the flood was less than 800 cfs and the drainage area was less than 1.5 square miles, the problem was considered a non-Federal responsibility. The Committee considers this definition of Federal and non-Federal interests to be arbitrary and unfounded. Drainage area and amount of discharge have no definite relation to the amounts of flood damages which may be inflicted. Indeed, no such limitation exists in the case of planning and recommending projects for flood damage reduction in rural areas. The limitation is especially arbitrary in view of the fact that a particular discharge can produce much more severe flooding in an urban area than in a rural area because of the effects of development and the quicker run-off and accumulation of flood waters. Accordingly, the Committee has directed in Section 1159 that the secretary shall consider and evaluate measures to reduce or eliminate damages from flooding without regard to frequency of flooding, drainage area and amount of run-off. This places all areas, both urban and rural, on an equal footing.

SECTION 1160

This section authorizes the Secretary to construct and improve facilities at the Niagara Frontier Transportation Authority, Port of Buffalo, New York, including the construction of bulkheads, in a total length of 1000 feet, sufficient to facilitate a 1000-foot class X vessel, or a 730-foot class VII vessel, at an estimated cost of $6,450,000. The bulkheading is necessary in the interest of vessel safety. Present conditions include a rough rock surface which poses the potential of vessel damage.

SECTION 1161

This section authorizes the Secretary to construct and maintain a navigation channel nine feet deep and 100 feet wide from the mouth of the Beaver River at Bridgewater, Pennsylvania, a distance of approximately three miles upriver to the dam at New Brighton at an estimated cost of $700,000. Prior to initiation of construction of the project, non-Federal interests shall agree to pay one-half of the costs of construction of the project attributable to recreational boating. This is the traditional cost-sharing for recreational navigation.

SECTION 162

This section makes it a Federal crime to assault uniformed civilian employees of the Corps of Engineers assigned to perform investigations, inspection, or law or regulatory enforcement functions. It is similar to provisions relating to other Federal agencies.

SECTION 1163

This section authorizes the Secretary, in consultation with appropriate Federal, state and local agencies, to plan, design and construct a demonstration project for the recharge of groundwater in the drainage basin of the Tucson, Arizona, metropolitan area at an estimated cost of $2,500,000.

Metropolitan Tucson, with a population of 550,000 people, is one of the largest cities in the country that is entirely dependent on groundwater for its water supply. At present, groundwater is being used at a rate far greater than the rate of natural replenishment.

In 1990 to 1991, when the Tucson aqueduct of the Central Arizona Project is expected to be completed, this overdraft of groundwater will be reducted, but will not be eliminated. In addition, the population of Tucson is expected to double by the year 2000, and triple by the year 2025.

The 1980 Arizona Groundwater Management Act, the most comprehensive groundwater management statute in the Nation, mandates that groundwater withdrawals be balanced with replenishment in the Tucson area by the year 2025. Efficient use of available water supplies is the focus of attention throughout the Tucson Area. The Tucson Active Management Area, the entity of the Arizona Department of Water Resources responsible for groundwater management in the Tucson area, is currently preparing a groundwater management plan that will promulgate groundwater conservation measures and groundwater withdrawal policies for all users.

The Arizona Groundwater Management Act also authorizes the Director of the Department of Water Resources to levy an annual groundwater withdrawal fee, a portion of which may be used for augmentation of the groundwater supply as through groundwater recharge. Water conservation, reuse of effluent and replenishment of the aquifer by groundwater recharge with flood flows, effluent and/or surplus Central Arizona Project water, when it is available are very important elements in total water management for the Tucson community. In 1981, through its Tucson Urban Study, the Corps of Engineers completed a basin-wide survey of groundwater recharge potential. This study examined technical criteria, evaluated alternative methodologies and reviewed potential sites throughout the basin.

This provision for a groundwater recharge project for Tucson would authorize the Corps of Engineers to take its research several steps further and implement one of the most efficient ways of stabilizing Tucson's water future. It would also provide data on recharge methodology that would be applicable throughout the arid West. The Corps would be continuing the work it has begun, norrowing site selection, intensively studying technical aspects of selected sites, designing, constructing and monitoring a groundwater recharge demonstration project at a chosen site, and determining from this data the preferred methodology for recharge, and constructing a full-scale groundwater recharge project.

SECTION 1164

Subsection (a) authorizes the Secretary, with the concurrence of the Director of the National Park Service and the South Florida Water Management District, to modify the schedule for delivery of water from the Central and Southern Florida Project to the Everglades National Park and to conduct an experimental program for the delivery of water to the Everglades National Park from the project for the purpose of determining an improved schedule for such delivery.

Subsection (b) directs the Secretary as soon as practicable to make such modifications in the Comprehensive Plan for Flood Control and Other Purposes for Central and Southern Florida, as may be necessary to restore the natural flow of water to the Everglades National Park. The Secretary is further authorized to acquire such interests in lands as are necessary to permit the natural flow of water to the Park, at an estimated cost of $75 million. The Secretary is directed to acquire any interest in land under this subsection at the fair market value of that interest in land based on conditions existing after the construction of the Central and Southern Flood Control Project and before any modification is made to the schedule for delivery of water to the Park, and before the restoration of the natural flow. The Secretary is also authorized to construct necessary flood protection measures for protection of homes in the area affected by any modification of such delivery schedule or by the restoration of the natural flow.

The ecology of the Everglades National Park is totally dependent upon the wet and dry water cycles resulting from the run-off of most of the Southern one-half of the Florida peninsula. These natural cycles have been significantly modified by the Central and South Florida Flood Control Project, which is a project designed for the purposes of flood control and water supply. The Everglades National Park has suffered several years of drought and flooding resulting in the loss of successful nesting by many bird species over the last five to ten years. The situation is now so acute that the loss of one or two more nesting cycles could cause extinction of some species.

The Park has recently experienced very damaging ecological conditions as a result of the unseasonably wet period during January through March 1983, which has caused the Park to go without the drying-out period that normally occurs during that time of the year.

The Central and Southern Florida Project involves an area of about 16,000 square miles including all or part of 18 counties in Central and Southern Florida. The project is for the purposes of flood control and water conservation. The first phase of the project was authorized in 1948 and was amended through a series of Acts extending through 1968. The purposes of the project are to provide flood control for urban areas and the productive agricultural areas around Lake Okeechobee, the Upper St. Johns and Kissimmee River Basins, and South Dade County; to provide municipal and agricultural water supply to prevent salt water intrusion; enhance the region's fish and wildlife resources; and provide a water supply to the Everglades National Park.

Construction of the project has eliminated the historical sheet flow of water over a wide geographical area which used to supply water to the Everglades National Park. In the 1960s, great concern was expressed over the lack of water supply to the Everglades National Park. In response to that concern, section 2 of Public Law 91-282, approved June 19, 1970, provided that delivery of water from the Central and Southern Florida Project to the Everglades National Park should be not less than 350,000 acre-feet annually prorated according to the monthly schedule set forth in the National Park Service letter of October 20, 1967 to the Office of the Chief of Engineers, or 16.5 percent of total deliveries from the Project for all purposes including the Park, whichever is less. This was a proposal adopted during relatively dry years. During the recent wet period, it has not functioned well at all. The problem is that the water is now delivered in relatively large amounts over a smaller geographical area to the Park rather than being delivered over a large area in a sheet flow to the Park so that it reaches the Park gradually and recharges groundwater resources in the process.

The Corps of Engineers in conjunction with the Central and South Florida Flood Control District, the State of Florida and the National Park Service, has been studying means of improving water delivery to the Park. The serious situation at the Park, however, will not permit waiting for the completion of that study.

Section 1164 is designed to address both the short-term and the long-term problems of the Park. The schedule for delivery of water to the Park from the Central and Southern Florida Project was developed during a relatively dry period. It does not work now. Therefore, subsection (a) authorizes the Secretary to conduct an experimental program for the delivery of water to the Everglades Park for the purpose of determining an improved schedule for such delivery. This will be of use with regard to the present problems related to too much water being delivered to the Everglades. With regard to long-term solutions, the Secretary is directed to make such modifications in the Central and Southern Florida Project as are necessary to restore the sheet flow over a large geographical area to the Park in order to once again establish the natural conditions insofar as possible. This will likely result in the flooding of large areas of land.

The Section, therefore, authorizes the Secretary to acquire any interest in land necessary to permit this natural flow. Without this provision, landowners would be forced to commence legal actions against the Secretary, and obtain any judgments in the courts which the courts determined appropriate. The purpose of this provision is to allow the Secretary to determine in advance which lands will be adversely affected, and to negotiate for the acquisition of necessary interests in those lands. It does not mandate the acquisition of all lands in the area but only permits the acquisition of those lands which will be adversely impacted by the restoration of the natural flows.

The Committee has directed that the lands be acquired at the fair market value based on conditions existing after the construction of the project in order to avoid any argument that the lands might have been flooded under natural conditions without the project in existence and therefore no compensation is owed. It is enormously difficult to determine what the hydrologic conditions might have been without the project, especially in view of the eratic weather cycle in Florida. The Committee feels that the most equitable solution is to compensate any landowners whose lands must be taken on the basis of the value of those lands existing now with the Central and Southern Florida Project in place.

The Secretary is also authorized to construct any necessary flood protection measures for protection of homes in the area because it is anticipated that restoration of the natural flow may threaten development which has occurred in the area and which the Committee understands has occurred legally and in accordance with applicable state and local regulations.

Section 1165

This section authorizes the Secretary, by any of the attorneys under the Chief of Engineers designated by the Secretary for that purpose, to bring suit in a district court of the United States or in the United States court of any territory, to acquire lands necessary for construction, operation and maintenance of any water resources project and to enforce terms of permits issued by the Secretary. The attorneys may also conduct litigation in which the Secretary or any officer under the Chief of Engineers is involved.

Section 1166

This section authorizes the Secretary to undertake such emergency bank stabilization measures as are necessary to protect bridges on Elm Creek in the vicinity of Decatur, Nebraska, at an estimated cost of $500,000.

Section 1167

Section 221 of the Flood Control Act of 1970 requires non-Federal interests to enter into binding contracts with the Secretary of the Army to furnish the required non-Federal cooperation for Corps of Engineers water resources projects. Many States have had difficulties with this requirement because it violates Constitutional provisions of the State against binding future legislatures to appropriation of funds. Section 1167 amends Section 221 to provide that in any agreement entered into by a State, the State may make the furnishing of all or any portion of its required cooperation contingent upon the appropriation by the state of necessary funds for that purpose.

Section 1168

This section authorizes and directs the Secretary to improve public access to, and lessen a health and safety hazard at, the Pearson-Skubitz Big Hill Lake, Kansas, by upgrading existing roads to the extent feasible and acquiring additional rights-of-way and constructing new roads as required, at an estimated cost of $1,200,000. The Big Hill Lake was authorized by the Flood Control Act of 1962, and impoundment of the lake began in March 1981. Since impoundment began, the reservoir has received wide acceptance as a recreation area and visitation in 1982 was 349,000 people. The main access road to the reservoir is unpaved, which creates a hazardous dust problem to the travelers on the road. Section 1168 will provide the necessary authority to the Secretary to pave the access roads to the project in order to adequately accommodate the many thousands of visitors which use it.

Section 1169

This section authorizes the Secretary to contract with existing nonprofit economic development organizations to assist in the preparation of projects as provided in Sections 804(a) and 851(b) of the bill and to undertake such actions as may be necessary to identify and stimulate the long-term economic development envisioned as the result of projects which serve remote rural areas or in areas where such actions are justified because of economic reasons. Section 804(a) relates to loans for water supply projects and Section 851(b) relates to construction of projects including water supply by the Secretary. Section 1169 will enable the Secretary to assist non-Federal interests in the preparation of loan applications and to assist in plans for inclusion of water supply in Federal projects in a manner which will stimulate the long-term economic development of the areas involved.

Section 1170

This section modifies the Arkansas-Red River Chloride Control Project to remove the condition that construction shall not be initiated on any element of the project until that element has been approved by the Secretary of the Army.

The Arkansas-Red River Basin Water Quality Control Projects, Texas, Oklahoma and Kansas, provide for control of natural chloride pollution from the major source areas of tributaries of the Arkansas and Red Rivers in northwestern Oklahoma, southern Kansas, southwestern Oklahoma, and northwestern Texas. In the Arkansas River Basin the plan of improvement consists of three freshwater lakes with outlet diversion channels, one on the Salt Fork of the Arkansas River, one a multiple purpose reservoir on the Cimarron and one on the Buffalo River, two brine lakes, one a modification of the existing Great Salt Plains Lake, and one on the Cimarron River. In the Red River Basin, the plan consists of five low-head brine collection dams; one on the North Wichita River, two on South Wichita River, one on Middle Fork Wichita River and one on Elm Fork. Also, there are three brine lakes, one on Fish Creek, one on Canal Creek and one on a small tributary of the

North Wichita River. In addition, there would be subsurface cut-off walls and collection conduits, well collection systems and pipelines and pumping facilities. General investigations commenced in 1959 and resulted in the preparation of a two-part report. Part I of the report, which was submitted to Congress in September of 1966, recommended structural control measures for three source areas along the Wichita River in the Red River Basin. These improvements were authorized by the Flood Control Act of 1966. Structural control measures in Part II for five source areas in the Red River Basin and for four areas in the Arkansas River Basin, were authorized by the Flood Control Act of 1970, subject to the provision that construction of the improvements recommended in both Part I and Part II reports would not be initiated until approved by the President and the Secretary of the Army. This authorization combined Part I and Part II into one project. The Water Resources Development Act of 1976 amended Section 201 of the Flood Control Act of 1970 to provide that construction shall not be initiated on any element of the project until such element has been approved by the Secretary of the Army. Section 1170 removes the requirement for approval of each element by the Secretary of the Army so that the project may proceed.

SECTION 1171

This section directs the Secretary to require a value engineering review during design for each water resources project authorized before, on or after the date of enactment of this Act which has an estimated cost in excess of $10 million. "Value engineering review" is defined as meaning a specialized cost control technique which uses a systematic and creative aproach to identify and to focus on unnecessarily high costs in a project in order to arrive at cost-savings without sacrificing the reliability or efficiency of the project.

SECTION 1172

Subsection (a) of this section provides that appropriate non-Federal interests shall provide the necessary lands, easements and rights-of-way for any water resources demonstration project authorized by the bill or any law enacted after the date of enactment of the bill. If the value of the lands, easements and rights-of-way provided by the non-Federal interests is less than 10 percent of the cost of the project, the non-Federal interests must pay to the Secretary over a 15-year period an amount equal to the excess of the value of the amount equal to 10 percent over the value of such lands, easements and rights-of-way.

Subsection (b) provides that if the Secretary estimates before the beginning of construction of any project to which this section applies, that the value of all lands, easements and rights-of-way will be a percentage of the cost of the project which is greater than 10 percent, the Secretary shall, upon request by non-Federal interests, acquire such lands, easements and rights-of-way except that the aggregate amount of the value of lands, easements and rights-of-way acquired by the Secretary shall be limited to the amount by which the estimated value exceeds 10 percent of the estimated cost of the project.

Demonstration projects are undertaken to provide useful information as to procedures and techniques to correct various problems. The results from such projects have widespread application. The Committee feels, however, that a non-Federal cost-share of 10 percent is appropriate in such projects in view of the local benefits which may result from the application of new and as yet untried techniques to solve particular problems. The projects in the bill to which this section applies are those for which it is specifically stated in the authorizing language that the project being undertaken is to be a demonstration project.

SECTION 1173

This section requires that beginning October 1, 1983, the Secretary, in cooperation with the State of Illinois, shall carry out measurements and make necessary computations required by the decree of the United States Supreme Court (388 U.S. 426) relating to the diversion of water from Lake Michigan, and shall coordinate the results with downstate interests. The measurements and computations are to consist of all flow measurements, gauge records, hydraulic and hydrologic computations, including periodic field investigations and measuring device calibrations, necessary to compute the amount of water diverted from Lake Michigan by the State of Illinois and its municipalities, political subdivisions, agencies and instrumentalities, not including water diverted or used by Federal installations.

Subsection (b) of this Section authorizes to be appropriated such sums as may be necessary to carry out this Section, including those funds necessary to maintain the measurements and computations as well as necessary capital construction costs associated with the installation of new flow measurement devices or structures declared necessary and appropriate by the Secretary.

SECTION 1174

This section provides that the total amount which may be appropriated from the General Fund of the Treasury for construction of water resources projects by the Secretary shall not exceed $1,500,000,000 per fiscal year for each of the fiscal years ending September 30, 1984, and September 30, 1985 and $1,600,000,000 per fiscal year for each of the fiscal years ending September 30, 1986, September 30, 1987, and September 30, 1988.

TITLE XII

WATER RESOURCES POLICY ACT

Title XII establishes a National Board on Water Resources Policy. This Board would replace the Water Resources Council.

The Water Resources Council was established by the Water Resources Planning Act of 1965. The Council was originally composed of the Secretary of the Interior, the Secretary of Agriculture, the Secretary of the Army, and the Chairman of the Federal Power Commission (now the Federal Energy Regulatory Commission). The purpose of the Act was to encourage the conservation, development, and utilization of water and related land resources of the

United States on a comprehensive and coordinated basis by the Federal Government, States, localities, and private enterprise. In subsequent acts, the Secretary of Commerce, the Secretary of Housing and Urban Development, the Secretary of Transportation, and the Administrator of the Environmental Protection Agency were added as members of the Council.

The Chairman of the Council is appointed by the President, and since the original enactment of the Act the Chairman has always been the Secretary of the Interior.

The Water Resources Council had three primary areas of responsibility. Title I of the Act establishes the Council and assigns it the duties of:

—Maintaining a continuing study and preparing a biennial assessment of the adequacy of supplies of water necessary to meet the water requirements in each water resources region in the United States;

—Maintaining a continuing study of the relation of regional or river basin plans and programs to the requirement of larger regions of the Nation;

—Establishing, with the approval of the President, principles, standards, and procedures for Federal participation in the preparation of comprehensive regional or River Basin plans and for the formulation and evaluation of Federal water and related land resources projects.

Title II of the Act authorizes the President to declare the establishment of River Basin Commissions upon request therefore by the Council or a request addressed to the Council by a state within which all or part of the basin is located. The request must be concurred in by the Council and by not less than one-half of the states within which portions of the basic concerned are located.

The primary purposes of the River Basin Commissions were to:

—Serve as the principal agency for the coordination of Federal, state, interstate, local and nongovernmental plans for the development of water and related land resources in its area;

—Prepare and keep up-to-date a comprehensive, coordinated joint plan for Federal, state, interstate, local and nongovernmental development of water and related resources; and

—Foster and undertake such studies of water and related land resources problems in its area as are necessary in the preparation of the comprehensive plan.

The six River Basin Commissions established pursuant to the Act were terminated by Executive Order 12319 of September 9, 1981.

Title III of the Act provides 50 percent matching grants to the states to assist the states in developing and participating in the development of comprehensive water and related land resources plans.

The Water Rescources Council did not live up to expectations. Operating on a consensus basis, it had great difficulty reaching difficult decisions. This led to decisions being made either within the departments, by the President, or more ofter, the Office of Management and Budget. It also led to a substantial lessening of support for the Council within both the Executive and Legislative branches.

In spite of the Council's failings, however, the Committee feels strongly that there is a need for an effective interagency group to develop principles and standards free from the dominance or influence of any particular agency and with a capable and professional staff. Also, the maintenance of current information on the nation's water resources needs and the adequacy of programs and policies to meet these needs provides an essential data base which can be utilized by Federal and non-Federal agencies, and the Congress.

Title XII establishes an organization similar in concept to the Council, but smaller in scale and more effective.

SUBTITLE A—SHORT TITLE

SECTION 1201

This section provides that Title XII may be cited as the Water Resources Policy Act of 1983.

SECTION 1202

This section provides that nothing in this Title shall be construed to expand or diminish Federal or State jurisdiction in the Field of water or related land resources planning.

SUBTITLE B—NATIONAL BOARD

SECTION 1221

This section establishes a National Board on Water Resources Policy which is composed of seven members as follows:

—The Secretary of the Interior;
—The Secretary of Agriculture
—The Secretary of the Army;
—The Administrator of the Environmental Protection Agency;
—Two members who shall be appointed by the President with the advise and consent of the Senate, one from nominations made by the Speaker of the House, and one from among nominations made by the President pro tempore of the Senate; and
—A chairman who shall be appointed by the President, by and with the advice and consent of the Senate.

The Secretaries and the Administrator may designate members in their stead, but any person so designated must be a person who is an officer of the United States, appointed by the President, with the advice and consent of the Senate. This is designed to insure that the four Federal agencies are represented on the Board by persons in responsible, policy-making positions.

The Chairman of the Board shall request the Secretary of Commerce, the Secretary of Housing and Urban Development, the Secretary of Transportation, and the Secretary of Energy and the heads of such other Federal agencies as may be appropriate to participate without a vote with the Board when matters affecting their responsibilities are considered by the Board. The Board is required to meet at least once during each quarter of the year. Any action of the Board requires a quorum to be present and a majority vote of those members present and voting.

SECTION 1222

This section describes the duties and responsibilities of the Board. These include:

—Performing studies and preparing assessments of the adequacy of supplies of water necessary to meet the water requirements in each water resource region in the United States and the national interest therein.

—Performing studies and preparing assessments of the relation of regional or river basin plans to the requirements of larger regions of the nation and of the adequacy of administrative and statutory means for the coordination of the water and related land resources policies of the several Federal agencies.

SECTION 1223

This section directs the Boards to assist in interagency coordination of Federal Water resources research, including a review of the adequacy of Federal programs for research, identificantion of duplication between two or more research programs, recommendations to the Federal agencies involved with respect to allocation of technical efforts, recommendations concerning management policies to improve the quality of research efforts, and actions to facilitate interagency communication.

SECTION 1224

This section directs the Board to establish principles, standards and procedures for the formulation and evaluation of Federal water and related land resources projects. It provides that the objectives of enhancing regional economic development, the quality of the total environment, the well-being of the people of the United States, the prevention of loss of life, and national economic development, shall be the objectives to be included in water resources projects, and that the benefits and costs attributable to these objectives shall be included in the evaluation of the benefits and costs of water resources projects. The principles and standards shall require that every report relating to a water resources project include specific information on the benefits and costs attributable to each of the objectives.

The principles and standards are also to define the objective of water conservation as including projects, programs, or features thereof designed to reduce the demand for water, improve efficiency in use and reduce losses and waste of water (including by storage), or improve land management practices to conserve water. Also, the principles and standards are to specifically prohibit any Federal water resources agency from preparing, or participating in the preparation of, any regional or river basin plan or any water resources project which has as the objective transfer of water from the Columbia River Basin, or the Arkansas River Basin, to any other region or river basin of the country.

The Board is directed to establish separate principles, standards and procedures for small Federal water or related land resources projects administered by the United States Department of Agriculture.

Finally, subsection (c) of Section 1224 provides that the principles, standards and procedures promulgated under the Water Resources Planning Act by the Water Resources Council, as in effect on March 9, 1983, shall be in effect until such time as principles, standards and procedures established by the new Board take effect.

SECTION 1225

This section authorizes the Board to hold hearings, acquire office space, use United States mails, employ personnel, and incur necessary expenses as are necessary to perform its functions. It also authorizes the head of any Federal agency upon request of the Board, to furnish such information as may be necessary for carrying out the Board's functions and to detail to temporary duty with the Board such personnel as the Board may need for carrying out its functions.

SECTION 1226

This section establishes a Regional State Water Resources Advisory Committee. The Board shall appoint one member from each of the major water resources regions of the country, giving consideration to recommendations of the Governors of the states which lie within such regions. The Committee is authorized to submit to the Board its recommendations on any matter which is before the Board, and these recommendations must be included in any recommendations of the Board reported to the President and Congress.

SECTION 1227

This section provides that when the Board promulgates regulations or rules relating to principles and standards, a copy of the regulations or rules shall be submitted to the House and the Senate. The regulations or rule shall not take effect before 90 calendar days of continuous session of Congress.

SECTION 1228

This section requires the Board no later than 15 days following the transmission of the President's budget submittal, to transmit to the House and the Senate reports on Bureau of Reclamation, Corps of Engineers, and Department of Agriculture water resources projects which are not included in the President's budget submittal, for which feasibility studies have previously been authorized, and the construction of which have not been completed. The report is to include a description of each project, the President's explanation for not including the project in his budget submittal, and information on the compliance of each project with any relevant principle and standards.

SECTION 1229

This section authorizes the appropriation of funds to carry out the provisions of Subtitle B in the amount of $3 million per year for fiscal years 1984 through 1988.

SUBTITLE C—ASSISTANCE FOR STATE WATER PLANNING AND MANAGEMENT

SECTION 1241

This section authorizes the Board to make grants to states to assist them in the development, implementation, and modification of programs and plans for the use, development, conservation, and management of state and regional water and related land resources.

SECTION 1242

This section provides that the grants shall be based on the basis of population, land area, financial need, and the need for water and related land resources planning and management assistance. Each state shall receive not less than $100,000 for each of the fiscal years 1984 through 1988. The grant funds may be matched by the states in cash or in kind.

SECTION 1243

This section provides that grant assistance for state water planning shall be consistent with the provisions in Section 1202 regarding the relationship of Federal and state jurisdiction in water resources development.

SECTION 1244

This section authorizes to be appropriated for the grant program $20 million per year for each of the fiscal years 1984 through 1988.

SECTION 1245

This section provides that for the purposes of Subtitle C, "State" means the 50 states, the District of Columbia, Puerto Rico, the Virgin Islands, Guam, American Samoa, the Northern Mariana Islands and the Trust Territory of the Pacific Islands.

SUBTITLE D—GENERAL PROVISIONS

SECTION 1261

This section repeals the Act which established the Water Resources Council. The Water Resources Policy Board established in this title is a replacement for the Council.

SECTION 1262

This section provides that no payment under this Title shall be effective except to such extent and in such amounts as are provided in appropriation acts.

TITLE XIII

PORT INFRASTRUCTURE DEVELOPMENT AND IMPROVEMENT TRUST FUND

SECTION 1301

This section establishes in the Treasury of the United States a trust fund to be known as the Port Infrastructure Development and Improvement Trust Fund. There is appropriated to the Trust Fund for each fiscal year an amount equal to the custom duties collected during the preceding fiscal year but not to exceed $2 billion. Amounts in the Trust Fund are available as provided by appropriation acts for making expenditures

—for feasibility studies and for construction, operation and maintenance of projects for ports by the Secretary of the Army;

—for feasibility studies and for construction rehabilitation and maintenance of projects for ports for the St. Lawrence Seaway by the St. Lawrence Seaway Development Corporation;

—for relocations of utilities, structures, and other improvements necessary for construction, operation and maintenance of port projects;

—for making payments to any non-Federal interest which has planned and designed or constructed a port in accordance with Section 104 of Title I of this Act.

SECTION 1302

This section provides that the amounts appropriated by Section 1301(b) to the Trust Fund shall be transferred at least monthly from the general fund of the Treasury to the Trust Fund on the basis of estimates made by the Secretary of the Treasury of the amounts referred to in Section 1301(b).

SECTION 1303

Subsection (a) of Section 1303 makes it the duty of the Secretary of the Treasury to hold the Trust Fund and to report to the Congress each year on the financial condition and the results of the operations of the Trust Fund during the preceding fiscal year and on its expected condition and operations during the next five fiscal years.

Subsection (b) of Section 1303 makes it the duty of the Secretary of the Treasury to invest such portion of the Trust Fund as is not, in his judgment, required to meet current withdrawals. Such investments may be made only in interest-bearing obligations of the United States.

SECTION 1304

This section defines the term "construction," for purposes of Title XIII, as including any planning, designing, engineering, and surveying which is necessary to carry out a project to a port and which is performed after authorization of the project. It also defines the terms "port" and "United States," for the purpose of Title

XIII, as having the meanings given these terms in Section 110 of the bill.

TITLE XIV

BRIDGES OVER NAVIGABLE WATERS

SECTION 1401

The Truman-Hobbs Act, 33 U.S.C. 511 et seq., provides that the Secretary of Transportation may order the alteration of any bridge which obstructs the free navigation of any navigable waters of the United States. When a bridge is required to be altered or relocated pursuant to the Truman-Hobbs Act, the costs of the alteration or relocation project are apportioned between the bridge owner, who bears the costs attributable to the direct and special benefits that will accrue to the bridge owner as a result of the alteration or removal, and the United States, which bears the balance of the costs. In order to be eligible for reimbursement under the Truman-Hobbs Act, the bridge to be removed or altered must be a "lawful bridge" under the terms of the Act.

Section 1401 remedies an unforeseen inequity which has resulted from a strict interpretation of the Truman-Hobbs Act as it relates to a bridge in the Galveston Bay area, which has experienced an unusual land subsidence problem.

The Port of Houston constructed a bridge across Greens Bayou (about mile 3) in 1931 under a Department of War (Army) permit. For about 20 years after completion, the vertical clearance provided for in the permit of 27.6 feet was available. The general land subsidence in the Galveston Bay area has resulted in a reduction of the clearance to about 19 feet, which interferes with existing navigation through the bridge.

The Port of Houston submitted an application to the Coast Guard for funding to raise the bridge pursuant to the Truman-Hobbs Act. The application was rejected on the basis that the bridge is not a lawful bridge for purposes of the Truman-Hobbs Act, because the reduced clearance caused by subsidence is not in accord with the permit conditions.

Section 1401 declares the bridge to be a "lawful bridge" for all purposes of that Act except that the total of Federal funds authorized to be expended because of that declaration shall not exceed $450,000.

SECTION 1402

Section 1402 requires the Secretary of Transportation to transmit to Congress a list of those bridges over navigable waters of the United States which have been constructed, reconstructed or removed during the period of time since the last such list was complied and transmitted to Congress in 1948, in order to bring this useful information up to date.

SECTION 1403

Section 1403 amends the Truman-Hobbs Act by adding a new Section which would provide Federal financial assistance to bridge owners who wish to construct or alter bridge protection systems in the interest of protecting bridges and enhancing the safety of vessels which navigate in their vicinity. This Section authorizes the appropriation of $2,000,000 per fiscal year, beginning in fiscal year 1984, for a program, administered by the Secretary of Transportation, that would provide 75 percent of the cost of such bridge protection work. Section 1403 also provides that the maintenance of bridge protection systems constructed or altered pursuant to this Section will be the responsibility of the respective bridge owners.

SECTION 1404

Section 1404 declares that the pipeline bridge over Greens Bayou, Texas, immediately adjacent to the Houston Port Authority bridge declared to be a lawful bridge in Section 1401, is also to be construed as a lawful bridge for the purposes of the Truman-Hobbs Act. This Section limits to $250,000 to total of all Federal funds authorized to be expended as a result of this declaration. This bridge also has reduced clearances caused by subsidence.

COMPLIANCE WITH CLAUSE 2(l) OF RULE XI OF THE RULES OF THE HOUSE OF REPRESENATIVES

(1) With reference to clause 2(1)(3)(A) of the Rules of the House of Representatives, no separate hearings were held on the subject matter of this legislation by the Subcommittee on Investigations and Oversight. However, the Subcommittee on Water Resources held numerous hearings on this subject matter. A joint hearing was held on February 23, 1983, by the Subcommittee on Water Resources and the Subcommittee on Investigations and Oversight on the issue of the backlog of Corps of Engineers' projects. The deauthorizations contained in Title X of this bill are, in part, a result of information obtained through that hearing.

(2) With respect to clause 2(1)(3)(B) of rule XI of the Rules of the House of Representatives, H.R. 3678, as reported, does not provide new budget authority or increased tax expenditures. Accordingly, a statement pursuant to Section 308(a) of the Congressional Budget Act is not required.

(3) With reference to clause 2(1)(3)(C) of rule XI of the Rules of the House of Representatives, the Committee has received a report prepared by the Congressional Budget Office under Section 403 of the Congressional Budget Act. The report is as follows:

U.S. CONGRESS,
CONGRESSIONAL BUDGET OFFICE,
Washington, D.C., November 1, 1983.

Hon. JAMES J. HOWARD,
Chairman, Committee on Public Works and Transportation, House of Representatives, Rayburn House Office Building, Washington, D.C.

DEAR MR. CHAIRMAN: Pursuant to Section 403 of the Congressional Budget Act of 1974, the Congressional Budget Office has prepared the attached cost estimate for H.R. 3678, the Water Resources Conservation, Development, and Infrastructure Improvement and Rehabilitation Act of 1983.

Should the Committee so desire, we would be pleased to provide further details on this estimate.

Sincerely,

RUDOLPH G. PENNER, *Director.*

CONGRESSIONAL BUDGET OFFICE COST ESTIMATE, NOVEMBER 1, 1983

1. Bill number: H.R. 3678.

2. Bill title: Water Resources Conservation, Development, and Infrastructure Improvement and Rehabilitation Act of 1983.

3. Bill status: As ordered reported by the House Committee on Public Works and Transportation, August 3, 1983.

4. Bill purpose: This bill authorizes studies, design, construction and modifications of water resources projects to be carried out by the Secretary of Army through the Army Corps of Engineers (Corps); outlines new cost-sharing practices for water resources projects carried out by the Corps; directs creation of several water resources demonstration projects; establishes a loan program for repair or improvement of water supply systems; renames a number of federal water projects; deauthorizes over 300 water resources projects; creates and funds a National Board on Water Resources Policy; sets a ceiling for appropriations from the general fund of the Treasury for fiscal years 1984 through 1988 for construction of water resources projects by the Corps; establishes the Port Infrastructure Development and Improvement Trust Fund; and authorizes federal financial assistance for repair of nonfederally-owned bridges.

5. Estimated cost to the Federal Government: The estimated budget impact of the projects and activities authorized or mandated in this bill, assuming the necessary appropriations, is shown in the following table for fiscal years 1984 through 1988.

[By fiscal years, in billions of dollars]

	1984	1985	1986	1987	1988
Estimated authorization level	1.2	1.4	1.6	2.2	2.8
Estimated outlays	0.2	0.6	1.0	1.7	2.4

In addition, it is estimated that outlays of $12.8 billion will be incurred by the federal government during the fiscal years 1989 through 1996 as a result of enactment of this bill. Upon completion of all the projects, total operations and maintenance expenditures will be about $0.5 billion annually.

The bill also deauthorizes over 300 water resources projects. The estimated budget impact of these deauthorizations, assuming they would otherwise have been funded, is as follows:

[By fiscal years, in billions of dollars]

	1984	1985	1986	1987	1988
Estimated authorization level	([1])	−0.3	−0.6	−1.3	−2.2
Estimated outlays	([1])	−0.2	−0.5	−1.1	−1.9

[1] Less than $50 million.

In addition, it is estimated that a reduction in outlays of approximately $13.3 billion will be realized by the federal government over fiscal years 1989 through 1996 as a result of the deauthorization package included in this bill. After 1996, annual federal operations and maintenance expenditures will be reduced by about $0.5 billion.

In addition to the specific project authorizations, the bill would limit general fund appropriations for Corps construction activities to $1.5 billion in fiscal years 1984 and 1985, and to $1.6 billion in fiscal years 1986 through 1988. To date, approximately $1 billion has been appropriated for comparable activities for fiscal year 1984.

There is no clear basis for determining the likely impact of these ceilings. They exceed the 1984 funding level, even when it is adjusted for projected inflation in subsequent years. They also exceed current program plans of the Corps of Engineers. However, the ceilings might constrain spending in the later years of the projection period, if funding is desired for all the projects in this bill.

There are a number of provisions in this bill for which no cost estimate could be made. These include: the provision in title I authorizing nonfederal interests to plan, design and construct navigation projects for ports in compliance with federal standards but not authorized by federal law (they would be reimbursed for the share of costs associated with the project that would have been incurred by the federal government had it been carried out under the normal federal authorization and appropriations process); the cost-sharing requirements for flood control projects in title III, as they apply to projects authorized by other legislation; the acquisition of 67,000 acres of land authorized in title V for the mitigation of wildlife losses resulting from construction and operation of the Tennessee-Tombigbee Waterway; and two general authorizations in title VII—one authorizing the Secretary to modify under certain conditions any water resources development project for mitigation of damages to fish and wildlife, and the other authorizing the Secretary to acquire for recreation purposes, as part of a project, lands which are not contiguous with that project. In addition, there are a number of provisions in title XI for which no cost estimate could be made. These include general authorizations for: the construction of nonstructural projects for the mitigation of shore damages caused by navigation projects; the restoration of certain nonfederally owned dams to a safe condition; the removal of snags, drift and debris from water resources projects and navigable streams and tributaries; the preservation and restoration of historic properties located on water resources development projects under the jurisdiction of the Corps; the advance or concurrent acquisition of lands necessary for mitigation of fish and wildlife losses attributable to a water resources project; modification of the cost-sharing requirement for placement of beach quality dredged material on beaches; and an extension of the authority of the Corps to provide emergency aid following a disaster.

The costs of this bill fall primarily within budget functions 300 and 450.

Basis of estimate: Titles I through V of this bill authorize funds for construction and modifications of water resources projects, and title X deauthorizes over 300 such projects. The bill specifies, in most cases, estimated costs in October 1982 prices as determined by the Corps of Engineers. (In this estimate, these will be referred to as "first costs"). For the purpose of projecting the budget impact of these titles, it is necessary to reflect the impact of inflation on first costs during the time lag between authorization, appropriation and beginning of construction, and the actual construction period.

In preparing estimates of the budget impact of authorizing legislation, it is normally assumed that the full authorization level will be funded beginning immediately upon enactment. Such an assumption would not be realistic for his legislation because of its size and scope. Thus, although this estimate assumes that the full amount authorized will be funded, a methodology was designed to approximate the normal lag in the funding of water projects. Recognizing the difficulty of estimating the timing of appropriation action for a particular project, the methodology is based on historical patterns and requires no explicit determination of when specific projects will be funded. The methodology uses an average time lag, based on ten years of historical data, for the length of time between the year of authorization and the year of first appropriation for advanced engineering and design and construction of similar projects. Outlays associated with both project authorizations and deauthorizations were estimated based on information from the Corps. They were then lagged in accordance with the calculated average time lag mentioned above, and were finally adjusted to reflect inflation. Authorization levels were estimated based on the historical outlay rates for affected programs.

For the purpose of this estimate it is assumed that all projects authorized by the bill will be constructed, and that all projects deauthorized by the bill would have been constructed (at the same frequency) in the absence of this legislation. (Although this bill contains a "sunset" provision stipulating that all authorizations for projects for which no funds have been obligated within five years of enactment will expire, for the purpose of this estimate all projects are assumed to receive at least some funding within these initial five years.) It is assumed that the bill will be enacted early in fiscal year 1984, and that the necessary appropriations will be provided each year. Appropriations are assumed to remain within the authorization ceilings specified in title XI.

The remainder of this section displays the costs of each title and discusses the basis for such estimates, including the costs to state and local governments. The latter are summarized in section 6 of the estimate.

TITLE I—PORT DEVELOPMENT

Sections 101 and 102 of the bill authorize navigation-related improvements at 6 deepwater ports and 27 other commercial ports at a total first cost of approximately $2.6 billion. Estimated authorization and outlays associated with this title are as follows:

[By fiscal years, in millions of dollars]

	1984	1985	1986	1987	1988
Federal Government:					
Estimated authorization level	2	18	40	90	160
Estimated outlays	1	13	34	75	139
State and local governments [1]: Estimated outlays	1	5	13	29	54

[1] For the purpose of this estimate, outlays by port authorities have been attributed to state and local units of governments.

In addition, it is estimated that outlays of approximately $4.4 billion will be incurred by the federal government, and outlays of approximately $1.8 billion will be incurred by nonfederal units of government over the fiscal years 1989 through 1996 as a result of these authorizations. Subsequently, annual federal operation and maintenance expenditures will be approximately $0.2 billion, and state and local contributions will be approximately $0.1 billion.

Section 104 of the bill authorizes nonfederal interests to plan, design, and construct navigation projects for ports not authorized by federal law and, if the project is in compliance with federal standards, to be reimbursed (subject to appropriations) for the share of costs associated with the project that would have been incurred by the federal government had it been carried out under the normal federal authorization and appropriations process. No estimate of the additional federal, state and local outlays associated with the provision could be made, because there is no clear basis for predicting the projects that will be undertaken according to the provisions of this section.

Section 105 of the bill outlines cost-sharing provisions for navigation improvement projects for ports in excess of 45 feet. Under these provision nonfederal parties will be responsible for 50 percent of the cost of the planning, designing, engineering, surveying, construction, operation, and maintenance of the portion of the project associated with depths greater than 45 feet. In addition, nonfederal parties will be responsible for 50 percent of costs associated with alterations of utility facilities required at depths less than 45 feet, and 25 percent of the costs associated with such alterations required as a result of deeper dredging. To the extent possible, the estimated budget impact of these provisions has been included in the table above.

TITLE II—INLAND WATERWAY TRANSPORTATION SYSTEM

Section 201 of the bill authorizes navigation-related improvements at 7 locks and dams on the inland waterway transportation system at a total first cost of approximately $1.1 billion. Section 202 of the bill stipulates that one-third of the federal share of the cost of planning, designing, engineering, surveying, and construction of these projects is to come from appropriations from the Inland Waterways Trust Fund. In addition, it specifies that one-third of the federal share of the cost of necessary alterations of utility facilities is to be paid from amounts appropriated from the general fund of the Treasury and one-sixth of these costs is to be paid from appropriations from the Inland Waterways Trust Fund. Estimated authorization levels and outlays associated with this title are as follows:

[By fiscal years, in millions of dollars]

	1984	1985	1986	1987	1988
Estimated authorization level	4	37	63	87	91
Estimated outlays	2	27	55	80	90

In addition, it is estimated that outlays of approximately $1.7 billion will be incurred by the federal government over the fiscal years 1989 through 1995 as a result of enactment of these authorizations. Subsequently, annual federal operation and maintenance expenditures will be approximately $0.2 billion.

Less than $5 million (in 1983 dollars) in outlays will be incurred by nonfederal parties as a result of these provisions if all projects authorized by this title are built, and only a portion of that amount will be incurred by units of state and local governments.

TITLE III—FLOOD CONTROL

Section 301 of the bill authorizes 80 flood control projects at a total first cost of approximately $3.4 billion. Estimated authorization levels and outlays associated with this title are as follows:

[By fiscal years, in millions of dollars]

	1984	1985	1986	1987	1988
Federal Government:					
Estimated authorization level	14	86	128	291	631
Estimated outlays	9	64	115	242	529
State and local governments: Estimated outlays	1	8	16	32	71

In addition, it is estimated that outlays of approximately $3.7 billion will be incurred by the federal government, and outlays of approximately $0.6 billion will be incurred by nonfederal units of government over the fiscal years 1989 through 1996 as a result of enactment of these authorizations. Subsequently, annual federal operations and maintenance costs will be about $4 million and nonfederal contributions will be about $16 million. Annual reimbursements from state and local governments to the federal government will be about $46 million over the 40 years beginning in fiscal year 1989.

Section 302 stipulates that the nonfederal share for flood control project will be 25 percent of the total project cost. Under current law nonfederal parties must provide lands, easements, and rights-of-way for federal water resources projects. This bill provides that if the value of these lands, easements and rights-of-way exceeds the 25 percent requirement but is not more than 30 percent of the total project cost, then this is to be the nonfederal share; if their value is less than 25 percent, the nonfederal interest must pay the balance to the federal government over a 15-year period following project completion. The budget impact of this provision for projects authorized by this bill has been estimated in the table above, with the following qualification: the full amount of the nonfederal government contributions are included in these outlay estimates because the information necessary to determine what proportion of lands, easements, and rights of way will need to be purchased by nonfederal units of government (and what proportion is already under state or local government ownership) is not readily available.

For projects authorized by other acts, no estimate of the budget impact of the new cost-sharing formula could be made.

TITLE IV—SHORELINE PROTECTION

Section 401 of the bill authorizes 17 shoreline protection projects at a total first cost of approximately $0.2 billion. Section 402 specifically authorizes the appropriation of $12.5 million for six demonstration projects for shoreline erosion. Estimated authorization levels and outlays associated with these sections are as follows:

[By fiscal years, in millions of dollars]

	1984	1985	1986	1987	1988
Federal Government:					
Estimated authorization level	13	4	34	85	83
Estimated outlays	2	11	28	70	84
State and local governments: Estimated outlays		1	4	11	15

In addition, it is estimated that outlays of approximately $60 million will be incurred by the federal government, and outlays of about $17 million will be incurred by nonfederal units of government in the fiscal years 1989 and 1990 as a result of enactment of these authorizations. Subsequently annual federal operations and maintenance expenditures will be about $10 million and nonfederal contributions will be about $6 million each year.

For the purpose of this estimate it was assumed that the full amount specifically authorized in section 402 would be appropriated early in fiscal year 1984, and that private parties would be required to pay the full 25 percent nonfederal share.

TITLE V—WATER RESOURCES CONSERVATION AND DEVELOPMENT

Section 501 of the bill authorizes construction of 36 projects for water resources development and conservation at a total first cost of approximately $1.3 billion. Sections 502 through 519 authorize the Secretary to carry out 6 demonstration projects and an additional 12 miscellaneous water resources projects at a total first cost of approximately $0.2 billion. Estimated authorization levels and outlays associated with these sections are as follows:

[By fiscal years, in millions of dollars]

	1984	1985	1986	1987	1988
Federal Government:					
Estimated authorization level	38	48	146	270	402
Estimated outlays	6	37	130	247	363
State and local governments: Estimated outlays	1	8	21	46	74

In addition, it is estimated that outlays of approximately $1.5 billion will be incurred by the federal government, and outlays of about $0.4 billion will be incurred by nonfederal units of government over the fiscal years 1989 through 1996 as a result of these authorizations. Subsequently, annual federal operations and maintenance expenditures will be about $46 million and nonfederal contributions will be about $21 million each year.

A total of $31 million is specifically authorized to be appropriated for two of the demonstration projects. For the purpose of this estimate it was assumed that these funds would be made available incrementally as needed, beginning in fiscal year 1984. No estimate of the costs associated with the land acquisitions authorized in section 518 could be made in the time available.

TITLE VI—WATER RESOURCES STUDIES

This title directs the Secretary to carry out a number of feasibility reports, studies, advanced engineering and design plans, and demonstration projects. It also expedites completion of a number of previously authorized studies and modifies the requirements of several studies currently underway.The total estimated cost specified in the title amounts to approximately $45 million, but costs for over half of the studies are not included. Estimated authorization levels and outlays associated with this title are as follows:

[By fiscal years, in millions of dollars]

	1984	1985	1986	1987	1988
Federal Government:					
Estimated authorization level	59	5	5		
Estimated outlays	19	22	13	9	5
State and local governments: Estimated outlays	1	1	1	1	1

Many of the activities authorized by this title require completion within a few fiscal years of enactment. Thus, for the purpose of this estimate, it was assumed that all funds necessary for the provisions of title VI would be appropriated incrementally as needed prior to the beginning of each fiscal year, beginning in 1984.

TITLE VII—PROJECT MODIFICATIONS

The 62 sections in this title each authorize modifications to water resources projects. All types of water projects are affected, including features designed for navigation, flood control, hydropower generation, and beach erosion control. Moreover, modifications authorized range from minor adjustments in repayment provisions to major design modifications. Over 20 of the 62 project modifications in the title have no estimated cost specified in the bill; for these projects, the estimated costs used in this estimate are based on information provided by the Corps of Engineers. The total specified estimate (or first cost) for the remaining projects is approximately $0.4 billion. Estimated authorization levels and outlays associated with this title are as follows:

[By fiscal years, in millions of dollars]

	1984	1985	1986	1987	1988
Federal Government:					
Estimated authorization level	81	157	132	327	522
Estimated outlays	57	134	139	268	464
State and local governments: Estimated outlays		−1	−2	−5	−9

In addition, it is estimated that outlays of about $0.9 billion will be incurred by the federal government in the fiscal years 1989 and 1990 if these projects are funded. Outlays by nonfederal government entities will be reduced by about $18 million over the same time period.

For the purpose of this estimate it was assumed that all funds authorized in this title would be appropriated incrementally as needed, beginning in fiscal year 1984.

Two sections of this title contain general authorizations for which no cost estimate could be made. Section 726 authorizes the Secretary to modify any water resources development project for mitigation of damages to fish and wildlife if the estimated cost of such modification does not exceed 10 percent of the estimated cost of the project or $7.5 million, whichever is less. Section 742 authorizes the Secretary to acquire for recreation purposes lands which are not contiguous with a water resources development project as part of the project. No estimate of the federal or state costs associated with these sections could be made, because it is impossible to identify projects which may be affected by these provisions.

TITLE VIII—WATER SUPPLY

Subtitle A authorizes the Secretary to make loans to state and local governments and to persons operating water systems regulated by states for the purposes of repairing, rehabilitating, expanding or improving a water supply system. Loans under this title are limited to 80 percent of the cost of the project and would be made at an interest rate equivalent to the federal government's cost of borrowing. Monies disbursed to construct approved projects as well as construction period interest would be repaid starting in the year the facility is completed. Repayment could be spread over as many as 50 years from that first payment.

All projects eligible for such loans must first be approved by joint resolution of both the Senate Committee on Environment and Public Works and the House Committee on Public Works and Transportation. Title VIII of this bill includes 16 projects specifically authorized for fiscal year 1984. Any additional projects must be evaluated and approved under provisions outlined in the bill.

Any applicant for assistance under this portion of title VIII must pay a fee of not more than $10,000, which is intended to offset any federal costs of processing the application. Any unused portion of this fee would be returned to the applicant.

The bill authorizes the appropriation of $800 million a year for fiscal years 1984 through fiscal year 1987, and such sums as may be necessary thereafter, for this program.

The only cost to the federal government to a direct loan is the cost of administration and defaults, if the loan is made at an interest rate equal to the government's own borrowing costs. Loans under this title would be made at such a rate and would be unlikely to suffer significant defaults. Assuming no defaults, loans under this title would result in negligible net costs to the government.

There would, however, be a significant budget impact from enacting this legislation. The commitment to participate in a project by the Corps would require the appropriation of the full loan amount in the year an agreement is reached, although the funds would be expended over the construction period of the project, often several years.

The table below assumes that half of all projects authorized for fiscal year 1984 result in loan approvals in the year and require appropriations under the circumstances outlined above. These funds are then assumed to be disbursed at rates similar to those for water projects aided by the Farmers Home Administration. Commitments for the remaining projects are assumed to be made in the second year. Project approvals and funding for subsequent years are assumed to follow the same pattern. Any delays in project review and approval procedures would delay outlays beyond the schedule estimated in the following table.

[By fiscal years, in millions of dollars]

	1984	1985	1986	1987	1988
Estimated authorization level	800	800	800	800	830
Estimated outlays	20	150	360	565	680

Subtitle B of title VIII authorizes the Secretary to survey, plan, and recommend to the Congress single and multipurpose water projects that would be constructed by the Corps under an agreement with local jurisdictions. Such an agreement would require that the federal government be repaid for its expenses under conditions identical to those of the direct loan program in subtitle A.

The title authorizes three specific projects eligible for construction under this subtitle, valued at approximately $167 million. The budget impact of this construction, should the projects start in fiscal year 1984, is summarized below.

[By fiscal years, in millions of dollars]

	1984	1985	1986	1987	1988
Estimated authorization level	5	30	50	45	20
Estimated outlays	5	30	50	45	20

Any subsequent projects under this title would require the appropriation of funds in the year construction obligations are expected to be incurred.

TITLE IX—NAMINGS

This title renames 10 federal water resources projects. No significant costs to the federal or state governments are expected to be incurred as a result of enactment of this title.

TITLE X—DEAUTHORIZATIONS

This title deauthorizes over 300 water resources projects with a total estimated first cost of $11.1 billion. Assuming that these projects would otherwise have been funded, the estimated reductions in authorization levels and outlays associated with this title are as follows:

[By fiscal years, in millions of dollars]

	1984	1985	1986	1987	1988
Federal Government: Estimated authorization level	−44	−297	−610	−1,284	−2,159
Estimated outlays	−30	−221	−516	−1,054	−1,896
State and local governments: Estimated outlays	−4	−31	−79	−176	−319

In addition, it is estimated that federal outlays will be reduced by approximately $13.3 billion and outlays by nonfederal units of government by about $2.5 billion over the fiscal years 1989 through 1996 as a result of these deauthorizations. Subsequently annual federal operations and maintenance expenditures will be reduced by about $0.5 billion, and nonfederal contributions will decrease by approximately $0.1 billion.

TITLE XI—GENERAL PROVISIONS

This title has 74 sections, of which only about half will have an additional cost impact to the federal or state and local governments over amounts included in the cost estimates for the first seven titles of the bill. (Many of the sections of this title contain programmatic or cost sharing provisions which affect the outlays expected to result from the project authorizations in titles I through VII. For example, section 1104 establishes the Environmental Protection and Mitigation Fund and specifically authorizes the appropriation of $35 million annually for the fund beginning in fiscal year 1984. However, no additional outlays from this authorization have been included in the cost estimate for title XI because it was assumed that monies from this fund would be available for studies, land acquisition, and initiation of construction for projects authorized in the first seven titles of the bill.)

There are a number of sections in this title for which no estimate of the cost to the federal or state and local governments could be made. All of these sections contain general programmatic provisions and will affect projects authorized by this bill as well as future water resources projects carried out by the Corps. These sections include provisions authorizing the construction of nonstructural projects for mitigation of shore damages caused by navigation projects; the restoration of certain nonfederally owned dams to a safe condition; the removal of snags, drift and debris from water resources projects and navigable streams and tributaries; the preservation and restoration of historic properties located on water resources development projects under the jurisdiction of the Corps; the advance or concurrent acquisition of lands necessary for mitigation of fish and wildlife losses attributable to a water resources project; modification of the cost sharing requirement for placement of beach quality dredged material on beaches; and an extension of the authority of the Corps to provide emergency aid following a disaster.

The provisions outlined in the sections expected to have additional costs and for which cost estimates could be made are diverse. Included in these sections are authorizations for studies; demonstration projects; new programs; land conveyances; and repayment contract revisions. In addition, there are increases in funding ceilings for several ongoing programs, and authorizations for appropriations for several specific water resources projects. Estimated authorization levels and outlays associated with these sections are as follows:

[By fiscal years, in millions of dollars]

	1984	1985	1986	1987	1988
Estimated authorization level	148	156	148	182	188
Estimated outlays	55	87	76	122	160

In addition, it is estimated that outlays of approximately $0.4 billion will be incurred by the federal government over the fiscal years 1989 through 1996 as a result of enactment of this title. Subsequently annual operations and maintenance costs of about $67 million will be incurred.

This title will have no significant budget impact on state and local governments.

TITLE XII—WATER RESOURCES POLICY ACT

Subtitle B of this title creates the National Board of Water Policy and a regional-state water resources advisory committee, and authorizes the appropriation of a total of $3.0 million in each of fiscal years 1984 through 1988 for costs associated with administration, staffing and other expenditures of the board and advisory committee. It is estimated that 90 percent of these funds will be spent in the year in which they are appropriated, and the remainder will be spent in the following year, based on historical data for federal overhead and administrative expenses.

Subtitle C authorizes the National Board on Water Policy to make grants to the states to assist the implementation of comprehensive programs for use, development, conservation and management of state and regional water and related land resources. A total of $20 million is authorized to be appropriated in each of fiscal years 1984 through 1988 for these grants, and they are to be matched by the states on a one-to-one basis. Based on historical information on similar programs, it is estimated that outlays associated with these grants will occur at a rate of approximately 67 percent in the first year, 23 percent in the second year and 10 percent in the third year following appropriation. Authorization levels and estimated outlays associated with this title are as follows, assuming full appropriation of the authorized amounts:

[By fiscal years, in millions of dollars]

	1984	1985	1986	1987	1988
Federal Government:					
Authorization level	23	23	23	23	23
Estimated outlays	16	21	23	23	23
State and local governments: Estimated outlays	13	18	20	20	20

TITLE XIII—PORT INFRASTRUCTURE DEVELOPMENT AND IMPROVEMENT TRUST FUND

This title establishes the Port Infrastructure Development and Improvement Trust Fund and appropriates up to $2.0 billion to the fund from custom duties collected during the preceding fiscal year. The title provides that funds in the trust fund will be available for appropriations for projects authorized to receive money from the fund for: feasibility studies, construction, operation, and maintenance of ports carried out by the Secretary or the Saint Lawrence Seaway Development Corporation; relocations of utilities, structures, and other improvements; and repayments to nonfederal entities for planning, designing or constructing a port pursuant to section 104 of this act. Because all receipts to be deposited into this trust fund are currently collected and deposited into the general fund of the Treasury, no additional receipts to the federal government are expected to be realized as a result of enactment of this title. All outlays anticipated to be incurred from the trust fund are included in the cost estimates in the other relevant titles of this bill.

TITLE XIV—BRIDGES OVER NAVIGABLE WATERS

This title authorizes $0.7 million for the Greens Bayou and the Greens Bayou Pipeline Bridge. In addition, the bill provides $2 million a year (starting in fiscal year 1984) for the construction or alteration of bridge protection systems, and directs the Secretary of Transportation to list all bridges over navigable waters that were constructed, reconstructed, or removed since January 1, 1948. Authorization levels and estimated outlays associated with this title are as follows:

[By fiscal years, in millions of dollars]

	1984	1985	1986	1987	1988
Authorization level	3	2	2	2	2
Estimated outlays	1	2	2	2	2

No additional costs to state and local governments are expected to be incurred as a result of enactment of this title.

The costs of this title fall within budget function 400.

6. Estimated cost to State and local governments: The estimated total state and local share of the projects authorized in this bill is shown in the following table.

[By fiscal years, in millions of dollars]

	1984	1985	1986	1987	1988
Estimated outlays	17	40	73	134	226

In addition, it is estimated that outlays of approximately $2.7 billion will be incurred by nonfederal units of government over the fiscal years 1989 through 1996. Subsequently, annual operation and maintenance expenditures will be about $0.1 billion. Moreover, these entities will be responsible for reimbursements of about $46 million annually for the 40-year period beginning in fiscal year 1989.

In addition, the bill deauthorizes over 300 water resources projects. The estimated reduction in outlays by state and local units of government expected to result from these deauthorizations are as follows, assuming they would otherwise have been funded:

[By fiscal years, in billions of dollars]

	1984	1985	1986	1987	1988
Estimated outlays	−4	−31	−79	−179	−319

In addition, it is estimated that a reduction in outlays of approximately $2.5 billion will be realized by nonfederal units of government over the fiscal years 1989 through 1996 as a result of these deauthorizations. Subsequently annual operations and maintenance expenditures will be reduced by about $0.1 billion.

7. Estimate comparison: None.

8. Previous CBO estimate: None.

9. Estimate prepared by: Debbie Goldberg and Linwood T. Lloyd.

10. Estimate approved by: C. G. Nuckols, for James L. Blum, Assistant Director for Budget Analysis.

(4) With reference to clause 2(1)(3)(D) of rule XI of the Rules of the House of Representatives, the Committee has not received a report from the Committee on Government Operations pertaining to this subject matter.

(5) With reference to clause 2(1)(4) of rule XI of the Rules of the House of Representatives, the following information is provided: The effect of carrying out H.R. 3678, as reported, should be minimal with respect to prices and costs. The funds authorized to be appropriated in H.R. 3678, as reported, in many cases represent modifications of continuing authorities or of projects underway. The funding of any new projects pursuant to the authority contained in the bill will be governed by the budget procedures of the Congress under the Congressional Budget Act. The work undertaken pursuant to H.R. 3678, as reported, will also provide many needed jobs in the construction field.

COST OF LEGISLATION

Clause 7(a) of rule XIII of the Rules of the House of Representatives requires a statement of the estimated costs to the United States which would be incurred in carying out H.R. 3678, as reported, in Fiscal Year 1982, and each of the following five years. However, under paragraph (d) of clause 7, its provisions do not apply when the Committee has received a timely report from the Congressional Budget Office.

COMMITTEE ACTION AND VOTE

The Committee, in compliance with rule XI(2)(1)(2)(A) of the Rules of the House of Representatives, reports favorably the bill H.R. 3678. The Committee ordered the bill reported by a vote of 49 to 0.

CHANGES IN EXISTING LAW MADE BY THE BILL, AS REPORTED

In compliance with clause 3 of Rule XIII of the Rules of the House of Representatives, changes in existing law made by the bill as reported, are shown as follows (existing law proposed to be omitted is enclosed in black brackets, new matter is printed in italic, existing law in which no change is proposed is shown in roman):

WATER RESOURCES DEVELOPMENT ACT OF 1976

* * * * * * *

SEC. 120. (a) The Secretary of the Army, acting through the Chief of Engineers, is authorized to contract with States and their political subdivisions for the purpose of obtaining increased law enforcement services at water resources development projects under the jurisdiction of the Secretary of the Army to meet needs during peak visitation periods.

⟦(b) There is authorized to be appropriated $6,000,000 per fiscal year for the fiscal years ending September 30, 1978, and September 30, 1979, to carry out this section.⟧

(b) There is authorized to be appropriated $10,000,000 per fiscal year for each fiscal year beginning after September 30, 1983, to carry out this section.

* * * * * * *

SEC. 142. The Secretary of the Army, acting through the Chief of Engineers, is authorized and directed to investigate the flood and related problems to those lands lying below the plane of mean higher high water along the San Francisco Bay shoreline of San Mateo, Santa Clara, Alameda, Napa, *San Francisco, Marin,* Sonoma and Solano Counties to the confluence of the Sacramento and San Joaquin Rivers with a view toward determining the feasibility of and the Federal interest in providing protection against tidal and fluvial flooding. The investigation shall evaluate the effects of any proposed improvements on wildlife preservation, agriculture, municipal and urban interests in coordination with Federal, State, regional, and local agencies with particular reference to preservation of existing marshland in the San Francisco Bay region.

* * * * * * *

SEC. 145. The Secretary of the Army, acting through the Chief of Engineers, is authorized upon request of the State, to place on the beaches of such State beach-quality sand which has been dredged in constructing and maintaining navigation inlets and channels adjacent to such beaches, if the Secretary deems such action to be in the public interest and upon payment *by such State of 50 per* *centum* of the increased cost thereof above the cost required for alternative methods of disposing of such sand.

* * * * * * *

SEC. 156. The Secretary of the Army, acting through the Chief of Engineers, is authorized to provide periodic beach nourishment in the case of each water resources development project where such nourishment has been authorized for a limited period for such additional period as he determines necessary but in no event shall such additional period extend beyond the [fifteenth] *fiftieth* year which begins after the date of initiation of construction of such project.

* * * * * * *

SEC. 202. (a) The Congress finds that drift and debris on or in publicly maintained commercial boat harbors and the land and water areas immediately adjacent thereto threaten navigational safety, public health, recreation, and the harborfront environment.

(b)(1) The Secretary of the Army, acting through the Chief of Engineers, shall be responsible for developing projects for the collection and removal of drift and debris from publicly maintained commercial boat harbors and from land and water areas immediately adjacent thereto.

(2) The Secretary of the Army, acting through the Chief of Engineers is authorized to undertake projects developed under paragraph (1) of this subsection without specific congressional approval when the total Federal cost of the project is less than $400,000.

(c) The Federal share of the cost of any project developed pursuant to subsection (b) of this section shall be two-thirds of the cost of the project. The remainder of such costs shall be paid by the State, municipality, or other political subdivision in which the project is to be located, except that any costs associated with the collections and removal of drift and debris from federally owned lands shall be borne by the Federal Government. Non-Federal interests in future project development under subsection (b) of this section shall be required to recover the full cost of drift or debris removal from any identified owner of piers or other potential sources of drift or debris, or to repair such sources so that they no longer create a potential source of drift or debris.

(d) Any State, municipality, or other political subdivision where any project developed pursuant to subsection (b) of this section is located shall provide all lands, easements, and right-of-way necessary for the project, including suitable access and disposal areas, and shall agree to maintain such projects and hold and save the United States free from any damages which may result from the non-Federal sponsor's performance of, or failure to perform, any of its required responsibilities of cooperation for the project. Non-Federal interest shall agree, to regulate any project area following project completion so that such area will not become a future source of drift and debris. The Chief of Engineers shall provide technical advice to non-Federal interests on the implementation of this subsection.

(e) For the purposes of this section—

(1) the term "drift" includes any bouyant material that, when floating in the navigable waters of the United States, may cause damage to a commercial or recreational vessel; and

(2) the term "debris" includes any abandoned or dilapidated structure or any sunken vessel or other object that can reasonably be expected to collapse or otherwise enter the navigable waters of the United States as drift within a reasonable period.

[(f) There is authorized to be appropriated to carry out this section not to exceed $4,000,000 per fiscal year for fiscal years 1978 and 1979.]

(f) There is authorized to be appropriated to carry out this section such sums as may be necessary for fiscal years beginning after September 30, 1983.

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WATER RESOURCES DEVELOPMENT ACT OF 1974

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SEC. 16. (a) The comprehensive plan for flood control and other purposes in the White River Basin, as authorized by the Act of June 28, 1938 (52 Stat. 1215), and as modified and amended by subsequent Acts, is further modified to provide for a free highway bridge built to modern standards over the Norfork Reservoir at an appropriate location in the area where United States Highway 62 and Arkansas State Highway 101 were inundated as a result of the construction of the Norfork Dam and Reservoir. Such bridge shall be constructed by the Chief of Engineers in accordance with such plans as are determined to be satisfactory by the Secretary of the Army to provide adequate crossing facilities. Prior to construction the Secretary of the Army, acting through the Chief of Engineers, shall enter into an agreement with appropriate non-Federal interests as determined by him, which shall provide that after construction such non-Federal interests shall own, operate, and maintain such bridge and approach facilities free to the public.

(b) The cost of constructing such bridge shall be borne by the United States except that the State of Arkansas shall, upon completion of such bridge, reimburse the United States the sum of [$1,342,000 plus interest, compounded annually, for the period from May 29, 1943, to the date of enactment of this Act. Such interest shall be computed at rates determined by the Secretary of the Treasury to be equal to the average annual rates payable on all interest-bearing obligations of the United States forming a part of the public debt for each year during this period, and adjusted to the nearest one-eighth of 1 per centum.] *$1,700,000.*

SEC. 22. (a) The Secretary of the Army, acting through the Chief of Engineers, is authorized to cooperate with any State in the preparation of comprehensive plans for the development, utilization, and conservation of the water and related resources of drainage basins located within the boundaries of such State and to submit to Congress reports and recommendations with respect to appropriate Federal participation in carrying out such plans.

(b) There is authorized to be appropriated not to exceed $4,000,000 annually to carry out the provisions of this section except that not more than $200,000 shall be expended in any one year in any one State.

(c) For the purposes of this section, the term "State" means the several States of the United States, the Commonwealth of Puerto Rico, Guam, American Samoa, the Virgin Islands, the Commonwealth of the Northern Marianas, and the Trust Territory of the Pacific Islands.

(c) For the purposes of this section, the term "State" means the several States of the United States, the Commonwealth of Puerto Rico, Guam, American Samoa, the Virgin Islands, the Northern Mariana Islands, and the Trust Territory of the Pacific Islands.

* * * * * * *

SEC. 66. (a) The Secretary of the Army, acting through the Chief of Engineers, in authorized to undertake measures to clear the channel of the main channel of the Little Calumet River, Illinois, from its confluence with the Calumet-Sag channel eastward to Indiana State line, of fallen trees, roots, silt, and other debris and objects which contribute to flooding, unsightliness, and pollution of the river[.], *and thereafter to maintain such channel free of such trees, roots, silt, debris, and objects.*

(b) Prior to initiation of measures authorized by the section, such non-Federal interests as the Secretary of the Army, acting through the Chief of Engineers, may require shall agree to such conditions of cooperation as the Secretary of the Army, acting through the Chief of Engineers, determines appropriate, except that such conditions shall be similar to those required for similar project purposes in other Federal waste resources projects. *Non-Federal interests shall pay 25 per centum of the cost of maintaining the channel free of such trees, roots, silt, debris, and objects.*

* * * * * * *

SEC. 92. (a)*(1)* The hurricane-flood protection project on Lake Pontchartrain, Louisiana, authorized by section 204 of the Flood Control Act of 1965 (Public Law 89-298) is hereby modified to provide that non-Federal public bodies may agree to pay the unpaid balance of the cash payment due, with interest, in yearly installments. The yearly installments will be initiated when the Secretary determines that the project is complete but in no case shall the initial installment be delayed more than ten years after the initiation of project construction. [Each installment] *Except as provided in paragraph (2) of this subsection, each installment* shall not be less than one twenty-fifth of the remaining unpaid balance plus interest on such balance, and the total of such installments shall be sufficient to achieve full payment including interest, within twenty-five years of the initiation of project construction.

(2) The Secretary of the Army, acting through the Chief of Engineers, shall, upon the request of Saint Bernard Parish, Louisiana, modify the agreement entered into between the Secretary and Saint Bernard Parish pursuant to this section so that each installment to be paid by Saint Bernard Parish as its part of the non-Federal share of the cost of the hurricane-flood protection project on Lake Pontchartrain, Louisiana, shall be one-fiftieth of the remaining unpaid balance as set forth in such agreement plus interest on such bal-

ance, and the total of such installments shall be sufficient to achieve full payment of such balance, plus interest, within fifty years of the initiation of project construction.

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SECTION 116 OF THE RIVER AND HARBOR ACT OF 1970

SEC. 116. (a) The Secretary of the Army, acting through the Chief of Engineers, is authorized to undertake measures to clear the channel of the North Branch of the Chicago River, Illinois, of fallen trees, roots, and other debris and objects which contribute to flooding, unsightliness, and pollution of the river, and thereafter to maintain such channel free of such trees, roots, debris, and objects.

(b) Prior to initiation of measures authorized by this section, such non-Federal interests as the Secretary of the Army, acting through the Chief of Engineers, may require shall agree to such conditions of cooperation as the Secretary of the Army, acting through the Chief of Engineers, determines appropriate, except that such conditions shall be similar to those required for similar project purposes in other Federal water resources projects. [Non-Federal interests shall pay 25 per centum of the cost of maintaining the channel free of trees, roots, debris, and objects.] *The Secretary of the Army, acting through the Chief of Engineers, shall, before beginning any operation to maintain the channel authorized by this section, enter into a separate agreement with the appropriate non-Federal interests which is applicable only to that operation and which requires such non-Federal interests to pay 25 per centum of the cost of such maintenance operation.*

(c) There is authorized to be appropriated to the Secretary of the Army not to exceed $200,000 for the Federal share of the project to clear the channel, and not to exceed $150,000 each fiscal year thereafter to maintain such channel.

FLOOD CONTROL ACT OF 1946

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SEC. 10. That the following works of improvement for the benefit of navigation and the control of destructive flood-waters and other purposes are hereby adopted and authorized to be prosecuted under the direction of the Secretary of War and the supervision of the Chief of Engineers in accordance with the plans in the respective reports hereinafter designated and subject to the conditions set forth therein: *Provided,* That the necessary plans, specifications, and preliminary work may be prosecuted on any project authorized in this Act with funds from appropriations heretofore or hereafter made for flood control so s to be ready for rapid inauguration of a construction program: *Provided further,* That the projects authorized herein shall be initiated as expeditiously and prosecuted as vigorously as may be consistent with budgetary requirements: *And provided further,* That penstocks and other similar facilities adapted to possible future use in the development of hydroelectric power shall be installed in any dam authorized in this Act for construction by the War Department when approved by the Secretary of War on the recommendation of the Chief of Engineers and the Federal Power Commission:

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BRAZOS RIVER BASIN

The project for the Belton Reservoir on Leon River, Texas, is hereby authorized substantially in accordance with the recommendations of the Chief of Engineers in his report dated April 19, 1946, at an estimated cost of $15,500,000.

Of the conservation storage capacity provided by such reservoir, not to exceed forty-five thousand acre-feet of such capacity shall be available for irrigation *or water supply* purposes in the Leon, Lampasas, and Little River Valleys.

The project for flood protection at Eastland, on Leon River, Texas, is hereby authorized substantially in accordance with the recommendations of the Chief of Engineers in his report dated April 19, 1946, at an estimated cost of $82,800.

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SEC. 14. That the Secretary of War is hereby authorized to allot from any appropriations heretofore or hereafter made for flood control, not to exceed [$10,000,000] *$15,000,000* per year, for the construction, repair, restoration, and modification of emergency streambank and shoreline protection works to prevent damage to highways, bridge approaches, and public works, churches, hospitals, schools, and other nonprofit public services, when in the opinion of the Chief of Engineers such work is advisable: *Provided*, That not more than [$250,000] *$750,000* shall be alloted for this purpose at any single locality from the appropriations for any one fiscal year.

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SECTION 2 OF THE ACT OF DECEMBER 29, 1981

AN ACT to deauthorize several projects within the jurisdiction of the Army Corps of Engineers

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SEC. 2. (a). * * *

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[(h) The Secretary of the Army, acting through the Chief of Engineers, is authorized and directed to undertake such structural and nonstructural measures as he determines to be economically and engineeringly feasible to prevent flood damage to communities along the route of the Meramec River in Saint Louis and Jefferson Counties, Missouri. Such structural measures shall not include the construction of any dams or reservoirs. There is authorized to be appropriate for those fiscal years which begin on or after October 1, 1982, not to exceed $20,000,000 to carry out the provisions of this subsection.]

(h) The Secretary of the Army, acting through the Chief of Engineers, is authorized and directed to untake such structural and non-

structural measures as he determines to be economically and engineeringly feasible to prevent flood damage to communities along the route of the Meramec River and its tributaries in Saint Louis, Jefferson, and Franklin Counties, Missouri, at an estimated cost of $100,000,000.

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SECTION 111 OF THE RIVER AND HARBOR ACT OF 1968

SEC. 111. The Secretary of the Army, acting through the Chief of Engineers, is authorized to investigate, study, and construct projects *(both structural and nonstructural)* for the prevention or mitigation of shore damages attributable to Federal navigation works. The cost of installing, operating, and maintaining such projects shall be borne entirely by the United States. No such project shall be constructed without specific authorization by Congress if the estimated first cost exceeds [$1,000,000.] *$3,000,000.*

THE ACT OF AUGUST 8, 1972

AN ACT To authorize the Secretary of the Army to undertake a national program of inspection of dams

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SEC. 3. As soon as practicable after inspection of a dam, the Secretary shall notify the Governor of the State in which such dam is located the results of such investigation. *In any case in which any hazardous conditions are found during an inspection, upon request by the owner, the Secretary, acting through the Chief of Engineers, may perform detailed engineering studies to determine the structural integrity of the dam, subject to reimbursement of such expense.* The Secretary shall immediately notify the Governor of any hazardous conditions found during an inspection. The Secretary shall provide advice to the Governor, upon request, relating to timely remedial measures necessary to mitigate or obviate any hazardous conditions found during an inspection.

SEC. 4. *(a)* For the purpose of determining whether a dam (including the waters impounded by such dam) constitutes a danger to human life or property, the Secretary shall take into consideration the possibility that the dam might be endangered by overtopping, seepage, settlement, erosion, sediment, cracking, earth movement, earthquakes, failure of bulkheads, flashboard, gates on conduits, or other conditions which exist or which might occur in any area in the vicinity of the dam.

(b) In any case where the Secretary determines that a dam inspected under this Act which is owned by a State, a political subdivision thereof, or any other such public agency or instrumentality is in such a hazardous condition that it is a danger to human life or property, the Secretary is authorized to restore such dam to a safe condition if the State, political subdivision, or other public agency or instrumentality owning such dam agrees prior to any such restoration (1) to repay to the United States, over a period not to exceed fifty years from the date of completion of the restoration, all costs of

such restoration, together with interest, at a rate computed in accordance with section 301(b) of the Water Supply Act of 1958, and (2) to maintain such dam upon completion of such restoration in a safe condition. The Secretary is not authorized to carry out any of the work described in this subsection unless the State in which the work is to be accomplished has in existence and is maintaining a dam safety program for non-Federal dams which insures that non-Federal dams are built in accordance with sound engineering practice, protect the safety of the public, and are maintained in safe condition.

SEC. 5. *(a)* The Secretary shall report to the Congress on or before July 1, 1974, on his activities under the Act, which report shall include, but not be limited to—

(1) an inventory of all dams located in the United States;

(2) a review of each inspection made, the recommendations furnished to the Governor of the State in which such dam is located and information as to the implementation of such recommendation;

(3) recommendations for a comprehensive national program for the inspection, and regulation for safety purpose of dams of the Nation, and the respective responsibilities which should be assumed by Federal, State, and local governments and by public and private interests.

(b) The Secretary shall annually update the inventory of dams required to be prepared under subsection (a) and submit a report to the Congress on the results of such update.

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SECTION 104 OF THE RIVER AND HARBOR ACT OF 1958

SEC. 104. (a) There is hereby authorized a comprehensive program to provide for control and progressive eradication of water hyacinth, alligator weed, Eurasian water milfoil, and other obnoxious aquatic plant growths, from the navigable waters, tributary streams, connecting channels, and other allied waters of the United States, in the combined interest of navigation, flood control, drainage, agriculture, fish and wildlife conservation, public health, and related purposes, including continued research for development of the most effective and economic control measures, to be administered by the Chief of Engineers, under the direction of the Secretary of the Army, in cooperation with other Federal and State agencies. Local interests shall agree to hold and save the United State free from claims that may occur from control operations and to participate to the extent of 30 per centum of the cost of such operations. Costs for research and planning undertaken pursuant to the authorities of this section shall be borne fully by the Federal Government.

(b) There are authorized to be appropriated such amounts, not in excess of [$10,000,000] *$12,000,000* annually, as may be necessary to carry out the provisions of this section. Any such funds employed for control operations shall be allocated by the Chief of Engineers on a priority basis, based upon the urgency and need of each area, and the availability of local funds.

SECTION 101 OF THE ACT OF OCTOBER 21, 1978

AN ACT To amend the Internal Revenue Code of 1954 to provide that income from the conducting of certain bingo games by certain tax-exempt organizations will not be subject to tax, and for other purposes

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SEC. 101. (a) The Upper Mississippi River Basin Commission (referred to in this section as the "Commission") shall prepare a comprehensive master plan for the management of the Upper Mississippi River System in cooperation with the appropriate Federal, State, and local officials. The Commission shall publish a preliminary plan not later than January 1, 1981. The Commission shall hold public hearings on the preliminary plan in each State which would be affected by the plan, shall review all comments presented at such hearings or submitted in writing to the Commission, and, after making any revisions in the plan it decides are necessary, submit to Congress a final master plan not later than January 1, 1982. All decisions of the Commission related to the master plan shall be made by a two-thirds majority vote of the Commission.

(b) The Commission shall provide for public participation in the development, revision and implementation of said plan and shall encourage and assist such participation. The Commission shall, within 150 days after the date of enactment of this Act, publish guidelines in the Federal Register for public participation in the development, revision, and implementation of the plan. The final master plan shall not be implemented without the express approval of the plan by an Act of Congress enacted after the date of enactment of this Act. After such approval, no change may be made in the master plan except as may be provided by an Act of Congress enacted after the date of enactment of the Act approving the master plan. No person shall engage in any activity which violates any provision of the plan or which is inconsistent ⟦(as determined under regulations promulgated by the Commission)⟧ with the plan.

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⟦(i) No replacement, construction, or rehabilitation that expands the navigation capacity of locks, dams, and channels shall be undertaken by the Secretary of the Army to increase the navigation capacity of the Upper Mississippi River System, until the master plan prepared pursuant to this section has been approved by the Congress except as provided in section 102 and except for necessary operating and maintenance activities.⟧

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SECTION 4 OF THE ACT OF MARCH 4, 1915

AN ACT Making appropriations for the construction, repair, and preservation of certain public works on rivers and harbors, and for other purposes.

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SEC. 4. That the Secretary of War is hereby authorized to receive from private parties such funds as may be contributed by them to be expended in connection with funds apropriated by the United States for any authorized work of public improvement of rivers and harbors whenever such work and expenditure may be considered by the Chief of Engineers as advantageous to the interests of navigation; *Provided,* That when contributions heretofore or hereafter made by local interests for river and harbor improvements, in accordance with specific requirements or under general authority of Congress, are in excess of the actual cost of the work contemplated and properly chargeable to such contributions, such excess contributions may, with the approval of the Secretary of War, be returned to the proper representatives of the contributing interests, unless the provision of law under which the contribution is made requires that the entire contribution be retained by the United States. *No funds may be accepted or expended under this 24 section unless such acceptance and expenditure has been specificaly authorized for that project by law.*

SECTION 5 OF THE ACT OF JUNE 22, 1936

AN ACT Authorizing the construction of certain public works on rivers and harbors for flood control, and for other purposes

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FLOOD CONTROL ACT OF 1936

SEC. 5. That pursuant to the policy outlined in sections 1 and 3, the following works of improvement, for the benefit of navigation and the control of destructive flood waters and other purposes, are hereby adopted and authorized to be prosecuted, in order of their emergency as may be designated by the President, under the direction of the Secretary of War and supervision of the Chief of Engineers in accordance with the plans in the respective reports and records hereinafter designated: *Provided,* That penstocks or other similar facilities, adapted to possible future use in the development of adequate electric power may be installed in any dam herein authorized when approved by the Secretary of War upon the recommendation of the Chief of Engineers: *Provided further,* That the Secretary of War is authorized to receive from States and political subdivisions thereof, such funds as may be contributed by them to be expended in connection with funds appropriated by the United States for any authorized flood control work whenever such work and expenditure may be considered by the Secretary of War, on recommendation of the Chief of Engineers, as advantageous in the public interest, *except that no such funds may be accepted or expended unless such acceptance and expenditure has been specifically authorized for that project by law,* and the plans for any reservoir project may, in the discretion of the Secretary of War, on recommendation of the Chief of Engineers, be modified to provide additional storage capacity for domestic water supply or other conservation storage, on condition that the cost of such increased storage capacity is contributed by local agencies and that the local agencies agree to utilize such additional storage capacity in a manner consistent with Federal uses and purposes: *And provided further,* That when contributions made by States and political subdivisions thereof, are in excess of the actual cost of the work contemplated and properly chargeable to such contributions, such excess contributions may, with the approval of the Secretary of War, be returned to the proper representatives of the contributing interests.

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SECTION 5 OF THE ACT OF AUGUST 18, 1941

AN ACT Authorizing the construction of certain public works on rivers and harbors for flood control, and for other purposes

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SEC. 5. (a) That there is hereby authorized an emergency fund to be expended in flood emergency preparation, in flood fighting and rescue operations, or in the repair or restoration of any flood control work threatened or destroyed by flood, including the strengthening, raising, extending, or other modification thereof as may be necessary in the discretion of the Chief of Engineers for the adequate functioning of the work for flood control; in the emergency protection of federally authorized hurricane or shore protection being threatened when in the discretion of the Chief of Engineers such protection is warranted to protect against imminent and substantial loss to life and property; in the repair and restoration of any federally authorized hurricane or shore protective structure damaged or destroyed by wind, wave, or water action of other than an ordinary nature when in the discretion of the Chief of Engineers such repair and restoration is warranted for the adequate functioning of the structure for hurricane or shore protection. *In any case in which the Chief of Engineers is otherwise performing work under this section in an area for which the Governor of the affected state has requested a determination that an emergency exists or a declaration that a major disaster exists under the Disaster Relief Act of 1974, the Chief of Engineers is further authorized to perform on public and private lands and waters for a period of ten days following the Governor's request any emergency work made necessary by such emergency or disaster which is essential for the preservation of life and property, including, but not limited to, channel clearance, emergency shore protection, clearance and removal of debris and wreckage endangering public health and safety, and temporary restoration of essential public facilities and services.* The Chief of Engineers, in the exercise of this discretion, is further authorized to provide emergency supplies of clean [drinking] water, on such terms as he determines to be advisable, to any locality which he finds is confronted with a source of contaminated [drinking] water causing or likely to cause a substantial threat to the public health and welfare of the inhabitants of the locality. The appropriation of such moneys for the initial establishment of this fund and for its replenishment on an annual basis, is hereby authorized: *Provided,* That pending the appropriation of sums to such emergency fund, the Secretary of the Army may allot, from existing flood-control appropriations, such sums as may be necessary for the immediate prosecution of the work herein authorized, such appropriations to be reimbursed from the appropriation herein authorized when made. The Chief of Engineers is authorized, in the prosecution of work in connection with rescue operations, or in conducting other flood emergency work, to acquire on a rental basis such motor vehicles, including passenger cars and buses, as in his discretion are deemed necessary.

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SECTION 205 OF THE FLOOD CONTROL ACT OF 1948

SEC. 205. That the Secretary of the Army is hereby authorized to allot from any appropriations heretofore or hereafter made for flood control, not to exceed [$30,000,000] *$50,000,000* for any one fiscal year, for the construction of small projects for flood control and related purposes not specifically authorized by Congress, which come within the provisions of section 1 of the Flood Control Act of June 22, 1936, when in the opinion of the Chief of Engineers such work is advisable. The amount allotted for a project shall be sufficient to complete Federal participation in the project. Not more than [$4,000,000] *$7,500,000* shall be allotted under this section for a project at any single locality. The provisions of local cooperation specified in section 3 of the Flood Control Act of June 22, 1936, as amended, shall apply. The work shall be complete in itself and not commit the United States to any additional improvement to insure its successful operation, except as may result from the normal procedure applying to projects authorized after submission of preliminary examination and survey reports. *Section 302 of the Water Resources, Conservation, Development, and Infrastructure Improvement and Rehabilitation Act of 1983, relating to non-Federal share, acquisition of lands, easements, and rights-of-way, and relocations of utilities, structures, and other improvements, shall apply to projects under this section.*

SECTION 2 OF THE FLOOD CONTROL ACT OF AUGUST 28, 1937

SEC. 2. That the Secretary of the Army is hereby authorized to allot not to exceed [$5,000,000] *$10,000,000* from any appropriations heretofore or hereafter made for any one fiscal year for flood control, for removing accumulated snags and other debris, and clearing and straightening the channel in navigable streams and tributaries thereof, when in the opinion of the Chief of Engineers such work is advisable in the interest of flood control: *Provided,* That not more than [$250,000] *$750,000* shall be expended for this purpose for any single tributary from the appropriations for any one fiscal year.

SECTION 107 OF THE RIVER AND HARBOR ACT OF 1960

SEC. 107. (a) That the Secretary of the Army is hereby authorized to allot from any appropriations hereafter made for rivers and harbors not to exceed [$25,000,000] *$50,000,000* for any one fiscal year for the construction of small river and harbor improvement projects not specifically authorized by Congress which will result in substantial beneftis to navigation and which can be operated consistently with appropriate and economic use of the waters of the Nation for other purposes, when in the opinion of the Chief of Engineers such work is advisable, if benefits are in excess of the costs.

(b) Not more than [$2,000,000] *$4,000,000* shall be allotted for the construction of a project under this section at any single locality and the amount allotted shall be sufficient to complete the Federal participation in the project under this section.

(c) Local interests shall provide without cost to the United States all necessary lands, easements and rights-of-way for all projects to be constructed under the authority of this section. In addition, local interests may be required to hold and save the United States free from damages that may result from the construction and maintanance of the project and may be required to provide such additional local cooperation as the Chief of Engineers deems appropriate. A State, county, municipality or other responsible local entity shall give assurance satisfactory to the Chief of Engineers that such conditions of cooperation as are required will be accomplished.

(d) Non-Federal interests may be required to share in the cost of the project to the extent that the Chief of Engineers deems that such cost should not be borne by the Federal Government in view of the recreational or otherwise special or local nature of the project benefits.

(e) Each project for which money is allotted under this section shall be complete in itself and not commit the United Sates to any additional improvement to insure its successful operation, other than routine maintenance, and except as may result from the normal procedure applying to projects authorized after submission of survey reports, and projects constructed under the authority of this section shall be considered as authorized projects.

(f) This section shall apply to, but not be limited to, the provision of low water access navigation channels from the existing channel of the Mississippi River to harbor areas heretofore or now established and located along the Mississippi River.

Section 3 of the Act of August 13, 1946

AN ACT Authorizing Federal participation in the cost of protecting the shores of publicly owned property

Sec. 3. The Secretary of the Army is hereby authorized to undertake construction of small shore and beach restoration and protection projects not specifically authorized by Congress, which otherwise comply with section 1 of this Act, when he finds that such work is advisable, and he is further authorized to allot from any appropriations hereafter made for civil works, not to exceed [$25,000,000] *$30,000,000* for any one fiscal year for the Federal share of the costs of construction of such projects: *Provided,* That not more than [$1,000,000] *$3,000,000* shall be allotted for this purpose for any single project and the total amount allotted shall be sufficient to complete the Federal participation in the project under this section including periodic nourishment as provided for under section 1(c) of this Act: *Provided further,* That the provisions of local cooperation specified in section 1 of this Act shall apply: *And provided further,* That the work shall be complete in itself and shall not commit the United States to any additional improvement to insure its successful operation, except for participation in periodic beach nourishment in accordance with section 1(c) of this Act, and as may result from the normal procedure applying to projects authorized after submission of survey reports.

SECTION 3 OF THE ACT OF MARCH 2, 1945

AN ACT Authorizing the construction, repair, and preservation of certain public works on rivers and harbors, and for other purposes

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SEC. 3. That the Secretary of War is hereby authorized to allot not to exceed [$300,000] *$4,000,000* from any appropriations heretofore or hereafter, made for any one fiscal year for improvement of rivers and harbors, for removing accumulated snags and other debris, and for protecting, clearing, and straightening channels in navigable harbors and navigable streams and tributaries thereof, when in the opinion of the Chief of Engineers such work is advisable in the interest of navigation or flood control. The paragraph in section 1 of the River and Harbor Act approved July 25, 1912, relating to removal of temporary obstructions, as amended by section 3 of the River and Harbor Act approved July 3, 1930, and section 3 of the River and Harbor Act approved October 17, 1940, is hereby repealed.

SECTION 4 OF THE RIVER AND HARBOR ACT

SEC. 4. That no tolls or operating charges whatever shall be levied upon or collected from any vessel, dredge, or other water craft for passing through any lock, canal, canalized river, or other work for the use and benefit of navigation, now belonging to the United States or that may be hereafter acquired or constructed; and for the purpose of preserving and continuing the use and navigation of said canals and other public works without interruption, the Secretary of War, upon the recommendation of the Chief of Engineers, United States Army, is hereby authorized to draw his warrant or requisition, from time to time, upon the Secretary of the Treasury to pay the actual expenses of operating, maintaining, and keeping said works in repair, which warrants or requisitions shall be paid by the Secretary of the Treasury out of any money in the Treasury not otherwise appropriated: [*Provided,* That whenever, in the judgment of the Secretary of War, the condition of any of the aforesaid works is such that its entire reconstruction is absolutely essential to its efficient and economical maintenance and operation as herein provided for, the reconstruction thereof may include such modifications in plan and location as may be necessary to provide adequate facilities for existing navigation:] *Provided, That whenever, as determined by the Secretary, the condition of any of the aforesaid works is such that its reconstruction is essential to its efficient and economical maintenance and operation, the recon-*

struction thereof may include such modifications in plan and location as may be necessary to provide adequate facilities for navigation. No appropriation shall be made for the acquisition of any interest in real property for, or the actual construction of, any such reconstruction if such acquisition and actual construction have not been approved by resolution of the Committee on Environment and Public Works of the Senate and the Committee on Public Works and Transportation of the House of Representatives: Provided further, That the modifications are necessary to make the reconstructed work conform to similar works previously authorized by Congress and forming a part of the same improvement, and that such modifications shall be considered and approved by the Board of Engineers for Rivers and Harbors and be recommended by the Chief of Engineers before the work of reconstruction is commenced: *Provided further, also,* That an itemized statement of said expenses shall accompany the annual report of the Chief of Engineers: *And provided further,* That nothing herein contained shall be held to apply to the Panama Canal.

SECTION 1114 OF TITLE 18, UNITED STATES CODE

§ 1114. Protection of officers and employees of the United States

Whoever kills any judge of the United States, any United States Attorney, any Assistant United States Attorney, or any United States marshal or deputy marshal or person employed to assist such marshal or deputy marshal, any officer or employee of the Federal Bureau of Investigation of the Department of Justice, any officer or employee of the Postal Service, any officer or employee of the secret service or of the Drug Enforcement Administration, any officer or member of the United States Capitol Police, any officer or enlisted man of the Coast Guard, any officer or employee of any United States penal or correctional institution, any officer, employee or agent of the customs or of the internal revenue or any person assisting him in the execution of his duties, any immigration officer, any officer or employee of Department of Agriculture or of the Department of the Interior designated by the Secretary of Agriculture or the Secretary of the Interior to enforce any Act of Congress for the protection, preservation, or restoration of game and other wild birds and animals, any employee of the Department of Agriculture designated by the Secretary of Agriculture to carry out any law or regulation, or to perform any function in connection with any Federal or State program or any program of Puerto Rico, Guam, the Virgin Islands of the United States, or the District of Columbia, for the control or eradication or prevention of the introduction or dissemination of animal diseases, any officer or employee of the National Park Service, any civilian official or employee of the Army Corps of Engineers assigned to perform investigations, inspections, law or regulatory enforcement functions, or field-level real estate functions, any officer or employee of, or assigned to duty in, the field service of the Bureau of Land Management, or any officer or employee of the Indian field service of the United States, or any officer or employee of the National Aeronautics and Space Administration directed to guard and protect property of the

United States under the administration and control of the National Aeronautics and Space Administration, any security officer of the Department of State or the Foreign Service, *or any uniformed civilian official or uniformed civilian employee of the Corps of Engineers of the Department of the Army assigned to perform investigations, inspections, or law or regulatory enforcement functions in connection with civil activities of the Department of the Army,* or any officer or employee of the Department of Health, Education, and Welfare, the Consumer Product Safety Commission, Interstate Commerce Commission, the Department of Commerce, or of the Department of Labor or of the Department of the Interior or of the Department of Agriculture assigned to perform investigative, inspection, or law enforcement functions, or any officer or employee of the Federal Communications Commission performing investigative, inspection, or law enforcement functions, or any officer or employee of the Veterans' Administration assigned to perform investigative or law enforcement functions, while engaged in the performance of his official duties, or on account of the performance of his official duties, any attorney, liquidator, examiner, claim agent, or other employee of the Federal Deposit Insurance Corporation, the Federal Savings and Loan Insurance Corporation, the Comptroller of the Currency, the Federal Home Loan Bank Board, the Board of Governors of the Federal Reserve System, any Federal Reserve bank, or the National Credit Union Administration engaged in or on account of the performance of his official duties, or any officer or employee of the United States or any agency thereof designated to collect or compromise a Federal claim in accordance with sections 3711 and 3716–3718 of title 31 or other statutory authority shall be punished as provided under sections 1111 and 1112 of this title.

Flood Control Act of 1970

SEC. 201. Sections 201 and 202 and the last three sentences in section 203 of the Flood Control Act of 1968 shall apply to all projects authorized in this title. The following works of improvement for the benefit of navigation and the control of destructive floodwaters and other purposes are hereby adopted and authorized to be prosecuted by the Secretary of the Army, acting through the Chief of Engineers, in accordance with the plans and subject to the conditions recommended to the Chief of Engineers in the respective reports hereinafter designated.

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ARKANSAS-RED RIVER BASIN

The project for water quality control in the Arkansas-Red River Basin, Texas, Oklahoma, and Kansas, designated as Part I, authorized by the Flood Control Act of 1966, is hereby modified to include Part II of such project, substantially in accordance with the recommendations of the Chief of Engineers in his report dated May 6, 1970, except that the amount authorized for Part I shall be utilized for initiation and partial accomplishment of Parts I and II. [Construction shall not be initiated on any element of such project until such element has been approved by the Secretary of the Army.]

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SEC. 221. (a) After the date of enactment of this Act, the construction of any water resources project by the Secretary of the Army, acting through the Chief of Engineers, or by a non-Federal interest where such interest will be reimbursed for such construction under the provisions of section 215 of the Flood Control Act of 1968 or under any other provision of law, shall not be commenced until each non-Federal interest has entered into a written agreement with the Secretary of the Army to furnish its required cooperation for the project. *In any such agreement entered into by a State, such State may make the furnishings of all or any portion of its required cooperation contingent upon the appropriation by the State of necessary funds for that purpose.*

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SECTION 203 OF THE FLOOD CONTROL ACT OF 1966

SEC. 203. The following works of improvement for the benefit of navigation and the control of destructive floodwaters and other purposes are hereby adopted and authorized to be prosecuted under the direction of the Secretary of the Army and the supervision of the Chief of Engineers in accordance with the plans in the respective reports hereinafter designated and subject to the conditions set forth therein. The necessary plans, specifications, and preliminary work may be prosecuted on any project authorized in this title with funds from appropriations hereafter made for flood control so as to be ready for rapid inauguration of a construction program. The projects authorized in this title shall be initiated as expeditiously and prosecuted as vigorously as may be consistent with budgetary requirements. Penstocks and similar facilities adapted to possible future use in the development of hydroelectric power shall be installed in any dam authorized in this Act for construction by the Department of the Army when approved by the Secretary of the Army on the recommendation of the Chief of Engineers and the Federal Power Commission.

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ARKANSAS AND RED RIVERS

The project for water quality control in the Arkansas and Red River Basin, Texas, Oklahoma, and Kansas, designated as Part I is hereby authorized substantially in accordance with the recommendations of the Chief of Engineers in Senate Document Numbered 110, Eighty-ninth Congress, at an estimated cost of [$46,400,000.] *$177,600,000.* Actual construction of the part I works shall not be initiated until the related and supporting works of part II have been authorized by Congress.

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WATER RESOURCES PLANNING ACT

[SHORT TITLE

[SECTION 1. This Act may be cited as the "Water Resources Planning Act".

[STATEMENT OF POLICY

[SEC. 2. In order to meet the rapidly expanding demands for water throughout the Nation, it is hereby declared to be the policy of the Congress to encourage the conservation, development, and utilization of water and related land resources of the United States on a comprehensive and coordinated basis by the Federal Government, States, localities, and private enterprise with the cooperation of all affected Federal agencies, States, local governments, individuals, corporations, business enterprises, and others concerned.

[EFFECT ON EXISTING LAWS

[SEC. 3. Nothing in this Act shall be construed—

[(a) to expand or diminish either Federal or State jurisdiction, responsibility, or rights in the field of water resources planning, development, or control; nor to displace, supersede, limit or modify any interstate compact or the jurisdiction or responsibility of any legal established joint or common agency of two or more States, or of two or more States and the Federal Government; nor to limit the authority of Congress to authorize and fund projects;

[(b) to change or otherwise affect the authority or responsibility of any Federal official in the discharge of the duties of his office except as required to carry out the provisions of this Act with respect to the preparation and review of comprehensive regional or river basin plans and the formulation and evaluation of Federal water and related land resources projects;

[(c) as superseding, modifying, or repealing existing laws applicable to the various Federal agencies which are authorized to develop oir participate in the development of water and related land resources or to exercise licensing or regulatory functions in relation thereto, except as required to carry out the provisions of this Act; nor to affect the jurisdiction, powers, or prerogatives of the International Joint Commission, United States and Canada, the Permanent Engineering Board and the United States Operating Entity or Entities established pursuant to the Columbia River Basin Treaty, signed at Washington, January 17, 1961, or the International Boundary and Water Commission, United States and Mexico;

[(d) as authorizing any entity established or acting under the provisions hereof to study, plan, or recommend the transfer of waters between areas under the jurisdiction of more than one river basin commission or entity performing the function of a river basin commission.

[TITLE I—WATER RESOURCES COUNCIL

[Sec. 101. There is hereby established a Water Resources Council (hereinafter referred to as the "Council") which shall be composed of the Secretary of the Interior, the Secretary of Agriculture, the Secretary of the Army, the Secretary of Commerce, the Secretary of Housing and Urban Development, the Secretary of Transportation, the Administrator of the Environmental Protection Agency, and the Chairman of the Federal Power Commission. The Chairman of the Council shall request the heads of other Federal agencies to participate with the Council when matters affecting their responsibilities are considered by the Council. The Chairman of the Council shall be designated by the President.

[Sec. 102. The Council shall—

[(a) maintain a continuing study and prepare an assessment biennially, or at such less frequent intervals as the Council may determine, of the adequacy of supplies of water necessary to meet the water requirements in each water resource region in the United States and the national interest therein; and

[(b) maintain a continuing study of the relation of regional or river basin plans and programs to the requirements of larger regions of the Nation and of the adequacy of administrative and statutory means for the coordination of the water and related land resources policies and programs of the several Federal agencies; it shall appraise the adequacy of existing and proposed policies and programs to meet such requirements; and it shall make recommendations to the President with respect to Federal policies and programs.

[Sec. 103. (a) The Council shall establish, after such consultation with other interested entities, both Federal and non-Federal, as the Council may find appropriate, and with the approval of the President, principles, standards, and procedures for Federal participants in the preparation of comprehensive regional or river basin plans and for the formulation and evaluation of Federal water and related land resources projects. Such procedures may include provision for Council revision of plans for Federal projects intended to be proposed in any plan or revision thereof being prepared by a river basin planning commission.

[(b) The Council shall develop standards and criteria for economic evaluation of water resource projects. For the purpose of those standards and criteria, the primary direct navigation benefits of a water resource project are defined as the product of the savings to shippers using the waterway and the estimated traffic that would use the waterways. 'Savings to shippers' means the difference between (1) the freight rate or charges prevailing at the time of the study for the movement by the alternative means, and (2) those which would be charged on the proposed waterway. Estimated traffic that would use the waterway will be based on those freight rates, taking into account projections of the economic growth of the area.

[Sec. 104. Upon receipt of a plan or revision thereof from any river basin commission under the provisions of section 204(3) of this Act, the Council shall review the plan or revision with special regard to—

[(1) the efficacy of such plan or revision in achieving optimum use of the water and related land resources in the area involved;

[(2) the effect of the plan on the achievement of other programs for the development of agricultural, urban, energy industrial, recreational, fish and wildlife, and other resources of the entire Nation; and

[(3) the contributions which such plan or revision will make in obtaining the Nation's economic and social goals.

Based on such review the Council shall—

[(a) formulate such recommendations as it deems desirable in the national interest; and

[(b) transmit its recommendations together with the plan or revision of the river basin commission and the views, comments, and recommendations with respect to such plan or revision submitted by any Federal agency, Governor, interstate commission, or United States section of an international commission, to the President for his review and transmittal to the Congress with his recommendations in regard to authorization of Federal projects.

[SEC. 105. (a) For the purpose of carrying out the provisions of this Act, the Council may: (1) hold such hearings, sit and act at such times and places, take such testimony, receive such evidence, and print or otherwise reproduce and distribute so much of its proceedings and reports thereon as it may deem advisable; (2) acquire, furnish, and equip such office space as is necessary; (3) use the United States mails in the same manner and upon the same conditions as other departments and agencies of the United States; (4) employ and fix the compensation of such personnel as it deems advisable, in accordance with the civil service laws and Classification Act of 1949, as amended; (5) procure services as authorized by section 15 of the Act of August 2, 1946 (5 U.S.C. 55a), at rates not in excess of the daily equivalent of the rate prescribed for grade GS–18 under section 5332 of title 5 of the United States Code in the case of individual experts or consultants; (6) purchase, hire, operate, and maintain passenger motor vehicles; and (7) incur such necessary expenses and exercise such other powers as are consistent with and reasonably required to perform its functions under this Act.

[(b) Any member of the Council is authorized to administer oaths when it is determined by a majority of the Council that testimony shall be taken or evidence received under oath.

[(c) To the extent permitted by law, all appropriate records and papers of the Council may be made available for public inspection during ordinary office hours.

[(d) Upon request of the Council, the head of any Federal department or agency is authorized (1) to furnish to the Council such information as may be necessary for carrying out its functions and as may be available to or procurable by such department or agency, and (2) to detail to temporary duty with such Council on a reimbursable basis such personnel within his administrative jurisdiction as it may need or believe to be useful for carrying out its functions, each such detail to be without loss of seniority, pay, or other employee status.

[(e) The Council shall be responsible for (1) the appointment and supervision of personnel, (2) the assignment of duties and responsibilities among such personnel, and (3) the use and expenditures of funds.

[TITLE II—RIVER BASIN COMMISSIONS

[CREATION OF COMMISSIONS

[SEC. 201. (a) The President is authorized to declare the establishment of a river basin water and related land resources commission upon request therefore by the Council, or request addressed to the Council by a State within which all or part of the basin or basins concerned are located if the request by the Council or by a State (1) defines the area, river basin, or group of related river basins for which a commission is requested, (2) is made in writing by the Governor or in such manner as State law may provide, or by the Council, and (3) is concurred in by the Council and by not less than one-half of the States within which portions of the basin or basins concerned are located and, in the event the Upper Colorado River basin is involved, by at least three of the four States of Colorado, New Mexico, Utah, and Wyoming or, in the event the Columbia River Basin is involved, by at least three of the four States of Idaho, Montana, Oregon, and Washington. Such concurrences shall be in writing.

[(b) Each such commission for an area, river basin, or group of river basins shall, to the extent consistent with section 3 of this Act—

[(1) serve as the principal agency for the coordination of Federal, State, interstate, local and nongovernmental plans for the development of water and related land resources in its area, river basin, or group of river basins;

[(2) prepare and keep up to date, to the extent practicable, a comprehensive, coordinated, joint plan for Federal, State interstate, local and nongovernmental development of water and related resources: *Provided*, That the plan shall include an evaluation of all reasonable alternative means of achieving optimum development of water and related land resources of the basin or basins, and it may be prepared in stages, including recommendations with respect to individual projects;

[(3) recommend long-range schedules of priorties for the collection and analysis of baisc data and for investigation, planning, and construction of projects; and

[(4) foster and undertake such studies of water and related land resources problems in its area, river basin, or group of river basins as are necessary in the preparation of the plan described in clause (2) of this subsection.

MEMBERSHIP OF COMMISSIONS

[SEC. 202. Each river basin commission shall be composed of members appointed as follows:

[(a) A chairman appointed by the President who shall also serve as chairman and coordinating officer of the Federal members of the commission and who shall represent the Federal Government in Federal-State relations on the commission and who shall not, during the period of his service on the commission, hold any other position as an officer or employee of the United States, except as a retired officer or retired civilian employee of the Federal Government;

[(b) One member from each Federal department or independent agency determined by the President to have a substantial interest in the work to be undertaken by the commission, such member to be appointed by the head of such department or independent agency and to serve as the representative of such department or independent agency;

[(c) One member from each State which lies wholly or partially within the area, river basin, or group of river basins for which the commission is established, and the appointment of each such member shall be made in accordance with the laws of the State which he represents. In the absence of governing provisions of State law, such State members shall be appointed and serve at the pleasure of the Governor;

[(d) One member appointed by any interstate agency created by an interstate compact to which the consent of Congress has been given, and whose jurisdiction extends to the waters of the area, river basin, or group of river basins for which the river basin commission is created;

[(e) When deemed appropriate by the President, one member, who shall be appointed by the President, from the United States section of any international commission created by a treaty to which the consent of the Senate has been given, and whose jurisdiction extends to the waters of the area, river basin, or group of river basins for which the river basin commission is established.

[ORGANIZATION OF COMMISSIONS

[SEC. 203. (a) Each river basin commission shall organize for the performance of its functions within ninety days after the President shall have declared the establishment of such commission, subject to the availability of funds for carrying on its work. A commission shall terminate upon decision of the Council or agreement of a majority of the States composing the commission. Upon such termination, all property, assets, and records of the commission shall thereafter be turned over to such agencies of the United States and the participating States as shall be appropriate in the circumstances: *Provided*, That studies, data, and other materials useful in water and related land resources planning to any of the participants shall be kept freely available to all such participants.

[(b) State members for each commission shall elect a vice chairman, who shall serve also as chairman and coordinating officer of the State members of the commission and who shall represent the State governments in Federal-State relations on the commission.

[(c) Vacancies in a commission shall not affect its powers but shall be filled in the same manner in which the original appointments were made: *Provided*, That the chairman and vice chairman may designate alternates to act for them during temporary absences.

[(d) In the work of the commission every reasonable endeavor shall be made to arrive at a consensus of all members on all issues; but failing this, full opportunity shall be afforded each member for the presentation and report of individual views: *Provided*, That at any time the commission fails to act by reason of absence of consensus, the position of the chairman, acting in behalf of the Federal members, and the vice chairman, acting upon instructions of the State members, shall be set forth in the record: *Provided further*, That the chairman, in consultation with the vice chairman, shall have the final authority, in the absence of an applicable bylaw adopted by the commission or in the absence of a consensus, to fix the times and places for meetings, to set deadlines for the submission of annual and other reports, to establish subcommittees, and to decide such other procedural questions as may be necessary for the commission to perform its functions.

[DUTIES OF THE COMMISSIONS

[SEC. 204. Each river basin commission shall—

[(1) engage in such activities and make such studies and investigations as are necessary and desirable in carrying out the policy set forth in section 2 of this Act and in accomplishing the purposes set forth in section 201(b) of this Act;

[(2) submit to the Council and the Governor of each participating State a report on its work at least once each year. Such report shall be transmitted through the President to the Congress. After such transmission, copies of any such report shall be sent to the heads of such Federal, State, interstate, and international agencies as the President or the Governors of the participating States may direct;

[(3) submit to the Council for transmission to the President and by him to the Congress, and the Governors and the legislatures of the participating States a comprehensive, coordinated, joint plan, or any major portion thereof or necessary revisions thereof, for water and related land resources development in the area, river basin, or group of river basins for which such commission was established. Before the commission submits such a plan or major portion thereof or revision thereof to the Council, it shall transmit the proposed plan or revision to the head of each Federal department or agency, the Governor of each State, and each interstate agency, from which a member of the commission has been appointed, and to the head of the United States section of any international commission if the plan, portion or revision deals with a boundary water or a river crossing a boundary, or any tributary flowing into such boundary water or river, over which the international commission has jurisdiction or for which it has responsibility. Each such department and agency head, Governor, insterstate agency, and United States section of an international commission shall have ninety days from the date of the receipt of the proposed plan, portion, or revision to report its views, comments, and recommendations to the commission. The commission may modify the plan, portion, or revision after considering the reports so submitted. The views, comments, and recommendations submitted by each Federal department or agency head, Governor, interstate agency, and United States section of an international commission shall be transmitted to the Council with the plan, portion, or revision; and

[(4) submit to the Council at the time of submitting such plan, any recommendations it may have for continuing the functions of the commission and for implementing the plan, including means of keeping the plan up to date.

[POWERS AND ADMINISTRATIVE PROVISIONS OF THE COMMISSIONS

[SEC. 205. (a) For the purpose of carrying out the provisions of this title, each river basin commission may—

[(1) hold such hearings, sit and act at such times and places, take such testimony, receive such evidence, and print or otherwise reproduce and distribute so much of its proceedings and reports thereon as it may deem advisable;

[(2) acquire, furnish, and equip such office space as is necessary;

[(3) use the United States mails in the same manner and upon the same conditions as departments and agencies of the United States;

[(4) employ and compensate such personnel as it deems advisable, including consultants, at rates not in excess of the daily equivalent of the rate prescribed for grade GS-18 under section 5332 of title 5, United States Code, and retain and compensate such professional or technical service firms as it deems advisable on a contract basis;

[(5) arrange for the service of personnel from any State of the United States, or any subdivision or agency thereof, or any intergovernmental agency;

[(6) make arrangements, including contracts, with any participating government, except the United States or the District of Columbia, for inclusion in a suitable retirement and employee benefit system of such of its personnel as may not be eligible for or continuing in another governmental retirement or employee benefit system, or otherwise provide for such coverage of its personnel;

[(7) purchase, hire, operate, and maintain passenger motor vehicles; and

[(8) incur such necessary expenses and exercise such other powers as are consistent with and reasonably required to perform its functions under this Act.

[(b) The chairman of a river basin commission, or any member of such commission designated by the chairman thereof for the purpose, is authorized to administer oaths when it is determined by a majority of the commission that testimony shall be taken or evidence received under oath.

[(c) To the extent permitted by law, all appropriate records and papers of each river basin commission shall be made available for public inspection during ordinary office hours.

[(d) Upon request of the chairman of any river basin commission, or any member or employee of such commission designated by the chairman thereof for the purpose, the head of any Federal department or agency is authorized (1) to furnish to such commission such information as may be necessary for carrying out its functions and as may be available to or procurable by such department or agency, and (2) to detail to temporary duty with such commission on a reimbursable basis such personnel within his administrative jurisdiction as it may need or believe to be useful for carrying out its functions, each such detail to be without loss of seniority, pay, or other employee status.

[(e) The chairman of each river basin commission shall, with the concurrence of the vice chairman, appoint the personnel employed by such commission, and the chairman shall, in accordance with the general policies of such commission with respect to the work to be accomplished by it and the timing thereof, be responsible for (1) the supervision of personnel employed by such commission, (2) the assignment of duties and responsibilities among such personnel, and (3) the use and expenditure of funds available to such commission.

[COMPENSATION OF COMMISSION MEMBERS

[SEC. 206. (A) Any member of a river basin commission appointed pursuant to section 202 (b) and (e) of this Act shall receive no additional compensation by virtue of his membership on the commission, but shall continue to receive, from appropriations made for the agency from which he is appointed, the salary of his regular position when engaged in the performance of the duties vested in the commission.

[(b) Members of a commission, appointed pursuant to section 202 (c) and (d) of this Act, shall each receive such compensation as may be provided by the States or the interstate agency respectively, which they represent.

[(c) The per annum compensation of the chairman of each river basin commission shall be determined by the President, but when employed on a full-time annual basis shall not exceed the maximum scheduled rate for grade GS–18 of the Classification Act of 1949, as amended; or when engaged in the performance of the commission's duties on an intermittent basis such compensation shall be not more than $100 per day and shall not exceed $12,000 in any year.

[SEC. 207. (a) Each commission shall recommend what share of its expenses shall be borne by the Federal Government, but such share shall be subject to approval by the Council. The remainder of the commission's expenses shall be otherwise apportioned as the commission may determine. Each commission shall prepare a budget annually and transmit it to the Council and the States. Estimates of proposed appropriations from the Federal Government shall be included in the budget estimates submitted by the Council under the Budgeting and Accounting Act of 1921, as amended, and may include an amount for advance to a commission against State appropriations for which delay is anticipated by reason of later legislative sessions. All sums appropriated to or otherwise received by a commission shall be credited to the commission's account in the Treasury of the United States.

[(b) A commission may accept for any of its purposes and functions appropriations, donations, and grants of money, equipment, supplies, materials, and services from any State or the United States or any subdivision or a agency thereof, or intergovernmental agency, and may receive, utilize, and dispose of the same.

[(c) The commission shall keep accurate accounts of all receipts and disbursements. The accounts shall be audited at least annually in accordance with generally accepted auditing standards by independent certified or licensed public accountants, certified or licensed by a regulatory authority of a State, and the report of the audit shall be included in and become a part of the annual report of the commission.

[(d) The accounts of the commission shall be open at all reasonable times for inspection by representatives of the jurisdictions and agencies which make appropriations, donations, or grants to the commission.

[TITLE III—FINANCIAL ASSISTANCE TO THE STATES FOR COMPREHENSIVE PLANNING GRANT AUTHORIZATIONS

[SEC. 301. (a) In recognition of the need for increased participation by the States in water and related land resources planning to be effective, there are hereby authorized to be appropriated to the Council, $3,000,000 for fiscal year 1979 each for grants to States to assist them in developing and participating in the development of comprehensive water and related land resources plans.

[(b) The Council, with the approval of the President, shall prescribe such rules, establish such procedures, and make such arrangements and provisions relating to the performance of its functions under this title, and the use of funds available therefor, as may be necessry in order to assure (1) coordination of the program authorized by this title with related Federal planning assistance programs, including the program authorized under section 701 of the Housing Act of 1954 and (2) appropriate utilization of other Federal agencies administering programs which may contribute to achieving the purpose of this Act.

[ALLOTMENTS

[SEC. 302. (a) From the sums appropriated pursuant to section 301 for any fiscal year the Council shall from time to time make allotments to the States, in accordance with its regulations, on the basis of (1) the population, (2) the land area, (3) the need for comprehensive water and related land resource planning programs, and (4) the financial need of the respective States. For the purposes of this section the population of the States shall be determined on the basis of the latest estimates available from the Department of Commerce and the land area of the States shall be determined on the basis of the official records of the United States Geological Survey.

[(b) From each State's allotment under this section for any fiscal year the Council shall pay to such State an amount which is not more than 50 per centum of the cost of carrying out its State program approved under section 303, including the cost of training personnel for carrying out such program and the cost of administering such program.

[STATE PROGRAMS

[SEC. 303. The Council shall approve any program for comprehensive water and related land resources planning which is submitted by a State, if such program—

[(1) provides for comprehensive planning with respect to intrastate or interstate water resources, or both, in such State to meet the needs for water and water-related activities taking into account prospective demands for all purposes served through or affected by water and related land resources development, with adequate provision for coordination with all Federal, State, and local agencies, and nongovernmental entities having responsibilities in affected fileds;

[(2) provides, where comprehensive statewide development planning is being carried on with or without assistance under section 701 of the Housing Act of 1954, or under the Land and Water Conservation Fund Act of 1965, for full coordination between comprehensive water resources planning and other statewide planning programs and for assurances that such water resources planning will be in conformity with the general development policy in such State;

[(3) designates a State agency (hereinafter referred to as the "State agency") to administer the program;

[(4) provides that the State agency will make such reports in such form and containing such information as the Council from time to time reasonably requires to carry out is functions under this title;

[(5) sets forth the procedure to be followed in carrying out the State program and in administering such program; and

[(6) provides such accounting, budgeting, and other fiscal methods and procedures as are necessary for keeping appropriate accountability of the funds and for the proper and efficient administration of the program.

The Council shall not disapprove any program without first giving reasonable notice and opportunity for hearing to the State agency administering such program.

[REVIEW

[SEC. 304. Whenever the Council after reasonable notice and opportunity for hearing to a State agency finds that—

[(a) the program submitted by such State and approved under section 303 has been so changed that it no longer complies with a requirement of such section; or

[(b) in the administration of the program there is a failure to comply substantially with such a requirement,

The Council shall notify such agency that no further payments will be made to the State under this title until it is satisfied that there will no longer be any such failure. Until the Council is so satisfied, it shall make no further payments to such State under this title.

[PAYMENTS

[SEC. 305. The method of computing and paying amounts pursuant to this title shall be as follows:

[(1) The Council shall, prior to the beginning of each calendar quarter or other period prescribed by it, estimate the amount to be paid to each State under the provisions of this title for such period, such estimate to be based on such records of the State and information furnished by it, and such other investigation, as the Council may find necessary.

[(2) The Council shall pay to the State, from the allotment available therefor, the amount so estimated by it for any period, reduced or increased, as the case may be, by any sum (not previously adjusted under this paragraph) by which it finds that its estimate of the amount to be paid such State for any prior period under this title was greater or less than the amount which should have been paid to such State for such prior period under this title. Such payments shall be made through the disbursing facilities of the Treasury Department, as such times and in such installments as the Council may determine.

[DEFINITION

[SEC. 306. For the purpose of this title the term "State" means a State, the District of Columbia, Puerto Rico, the Virgin Islands or Guam.

[RECORDS

[SEC. 307. (a) Each recipient of a grant under this Act shall keep such records as the Chairman of the Council shall prescribe, including records which fully disclose the amount and disposition of the funds received under the grant, and the total cost of the project or undertaking in connection with which the grant was made and the amount and nature of that portion of the cost of the project or undertaking supplied by other sources, and such other records as will facilitate an effective audit.

[(b) The Chairman of the Council and the Comptroller General of the United States, or any of their duly authorized representatives, shall have access for the purpose of audit and examination to any books, documents, papers, and records of the recipient of the grant that are pertinent to the determination that funds granted are used in accordance with this Act.

[TITLE IV—MISCELLANEOUS

[AUTHORIZATION OF APPROPRIATIONS

[SEC. 401. There are authorized to be appropriated to the Water Resources Council:

[(a) The sum of $2,886,000 for fiscal year 1979 for the Federal share of the expenses of administration and operation of river basin commissions, including salaries and expense of the chairmen, but not including funds authorized by subsection (c) below: *Provided,* That not more than $750,000 annually shall be available under this subsection for any single river basin commission;

[(b) The sum of $2,668,000 for fiscal year 1979 for the expenses of the Water Resources Council in administrating this Act, not including funds authorized by subsection (c) below;

[(c) The sum of $3,179,900 for fiscal year 1979 for preparation of assessments, and for directing and coordinating the preparation of such river basin plans as the Council determines are necessary and desirable in carrying out the policy of this Act: *Provided,* That $828,900 shall be available under this subsection for preparation of the Columbia River Estuary Special Study: *Provided further,* That $308,000 shall be available under this subsection for preparation of the New England Port and Harbor Study and $135,000 shall be available for completion of the Hudson River Basin Level B Study: *Provided further,* That $150,000 shall be available under this subsection for completion of Case Studies of the Application of Cost Sharing Policy Options for Flood Plain Management in the Connecticut River Basin: *Provided further,* That not more than $2,500,000 shall be available under this subsection for the preparation of assessments: *Provided further,* That the Council may transfer funds authorized by this subsection to river basin commissions and to Federal and State agencies upon such terms and conditions as it determines are necessary and desirable to carry out the above functions in an economical, effcient, and timely manner, and that such commissions and agencies are hereby authorized to receive and expend such funds pursuant to this subsection.

[RULES AND REGULATIONS

[SEC. 402. The Council is authorized to make such rules and regulations as it may deem necessary or appropriate for carrying out those provisions of this Act which are administered by it.

[DELEGATION OF FUNCTIONS

[SEC. 403. The Council is authorized to delegate to any member or employee of the Council its administrative functions under section 105 and the detailed administration of the grant program under title III.

[UTILIZATION OF PERSONNEL

[SEC. 404. The Council may, with the consent of the lead of any other department or agency of the United States, utilize such officers and employees of such agency on a reimbursable basis as are necessary to carry out the provisions of this Act.]

THE ACT OF JUNE 21, 1940

AN ACT To provide for the alteration of certain bridges over navigable waters of the United States, for the apportionment of the cost of such alterations between the United States and the owners of such bridges, and for other purposes

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APPROPRIATION AUTHORIZED

SEC. 8. There are hereby authorized to be appropriated such sums as may be necessary to carry out the provisions of this Act[.], *other than section 14*.

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BRIDGE PROTECTION SYSTEMS

SEC. 14. (a) For the purpose of protecting bridges and enhancing the safety of vessels navigating in their vicinity, the Secretary may, upon those terms and conditions be considers appropriate, financially assist a bridge owner in the construction or alteration of a bridge protection system.

(b) A bridge owner who determines that his bridge is susceptible to damage due to the absence of a bridge protection system or the inadequacy of an installed bridge protection system may apply to the Secretary for financial assistance under this section. The application, and any material the Secretary requests supplemental thereto, shall be in a form and contain the information prescribed by the Secretary.

(c) Federal financial assistance for a project under this section shall be in an amount equal to 75 per centum of the cost of construction or alteration of the bridge protection system.

(d) Upon commencement of work on a bridge protection system, the Secretary may make partial payments as work progresses. However, the aggregate of partial payments may not exceed 50 per centum of the total cost of construction or alteration unless the Secretary determines that partial payments in excess of that amount are in the public interest.

(e) A recipient of financial assistance under this section shall keep those records prescribed by the Secretary, including records which fully disclose the amount and disposition of the financial assistance received. The Secretary and the Comptroller General of the United States, or any of their duly authorized representatives shall, for the purpose of audit and examination, have access to any books, documents, papers, and records of the recipient that are pertinent to the financial assistance received under this section.

(f) After the construction or alteration of a bridge protection system has been accomplished in accordance with this section, the bridge owner shall maintain the bridge protection system in proper repair so that it continues to serve its intended purpose and does not present an obstruction, hazard, or danger to the free navigation of the navigable waters of the United States.

(g) There is authorized to carry out this section not to exceed $2,000,000 per fiscal year for each fiscal year beginning after September 30, 1983.

Additional Views on H.R. 3678

Thomas E. Petri

H.R. 3678, the Water Resources Development Act, is a very large piece of legislation which is filled with hundreds of provisions and projects. Many of these projects and provisions are desirable and needed.

However, H.R. 3678 does not go as far as I would like toward reforms in national water policy which are needed to address the water problems of the '80's and '90's - reforms which have been recommended to the Congress by independent commissions, by previous administrations, and by the present Administration. I refer to the reform of cost-sharing policies to require non-federal interests to provide a greater share of the cost of the projects. Up-front contributions are required in other federal programs. Sewage treatment programs now have greater local cost-sharing and money up-front. There is no reason to shield many water projects from this reform.

The National Water Commission was created by Congress in 1968 to recommend changes in our water policy. The Commission's final Report in 1973 was highly critical of the current system of project evaluation and recommended that project beneficiaries shoulder a much greater share of the costs. While H.R. 3678 has provided some change in cost-sharing policy for flood control, deep-draft navigation and water supply, it has not gone as far as the Commission recommended. Furthermore, H.R. 3678 provides numerous waivers of already existing non-federal responsibilities.

Given that there are several hundred projects in the bill, it is unrealistic to assume that all of these will be funded in the next several years. There has to be some way of ordering our expenditures for water development. Up-front cost-sharing, where appropriate, would help accomplish this objective. The most effective test of the economic worthiness of a project -- whether its benefits really exceed its costs -- is the willingness of the beneficiaries to provide some financing.

For inland navigation projects the Committee has recommended that non-federal interests cover 33% of the costs of seven navigation projects authorized in the bill. This level falls far short of that called for by the Administration and by the National Water Commission. Furthermore, nothing is done to address the mere token level of user fees now in place for commercial barge operators. The Congressional Budget Office recognized the potential of increased user fees for ports and canals as a strategy for reducing budget deficits by over one billion dollars per year. The objective of meaningful levels of user fees is to increase national transportation efficiency.

Users of the inland waterway system assert that they could not pay full-cost for the services received, but the Department of Transportation in its Section 205 study on user fees for the Congress found that traffic on the inland waterway system would continue to grow even with full-cost user charges in place. What full-cost charges do is to ensure that only the traffic which can move most efficiently by barge actually does so.

There is another class of projects in the bill for municipal water supply which are being authorized even though no attempt has been made to determine how efficiently water is being used in the affected areas. The General Accounting Office cautioned us in 1981 when it reported that over 15 million acre-feet of water is sitting unused and uncontracted for in Army Corps and Bureau of Reclamation reservoirs. We must take the greatest care to make sure that we do not reward communities which are inefficient with a federal project while others who use water wisely have to pick up the cost of constructing the project. While the loan program under Subtitle A of Title VIII lays down some conditions for efficient use of water by beneficiaries, Subtitle B of the same Title does not. Furthermore, Subtitle A makes the water conservation requirement apply only at the time the project is completed rather than at the outset where it might significantly affect the sizing and scope of the project.

In H.R. 3678 there is a series of water supply reservoirs which the taxpayers have built for which the sponsors are now returning to obtain a federal distribution system. In the future we should do a better job of determining the full picture in advance -- distribution system and all -- and we should have some understanding of how efficiently the local system is being operated to avoid, when possible, subsidizing inefficient systems.

Since H.R. 3678 provides for Army Corps involvement in water distribution systems for the first time, the bill would be better if it laid down some criteria for rank ordering such projects.

I voted to report H.R. 3678 last August because I did not want to delay necessary projects. However, I am filling these additional views because I believe that the bill can be improved in the area of non-federal cost-sharing. I intend to offer an amendment to establish better cost sharing on water projects when the bill reaches the floor.

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